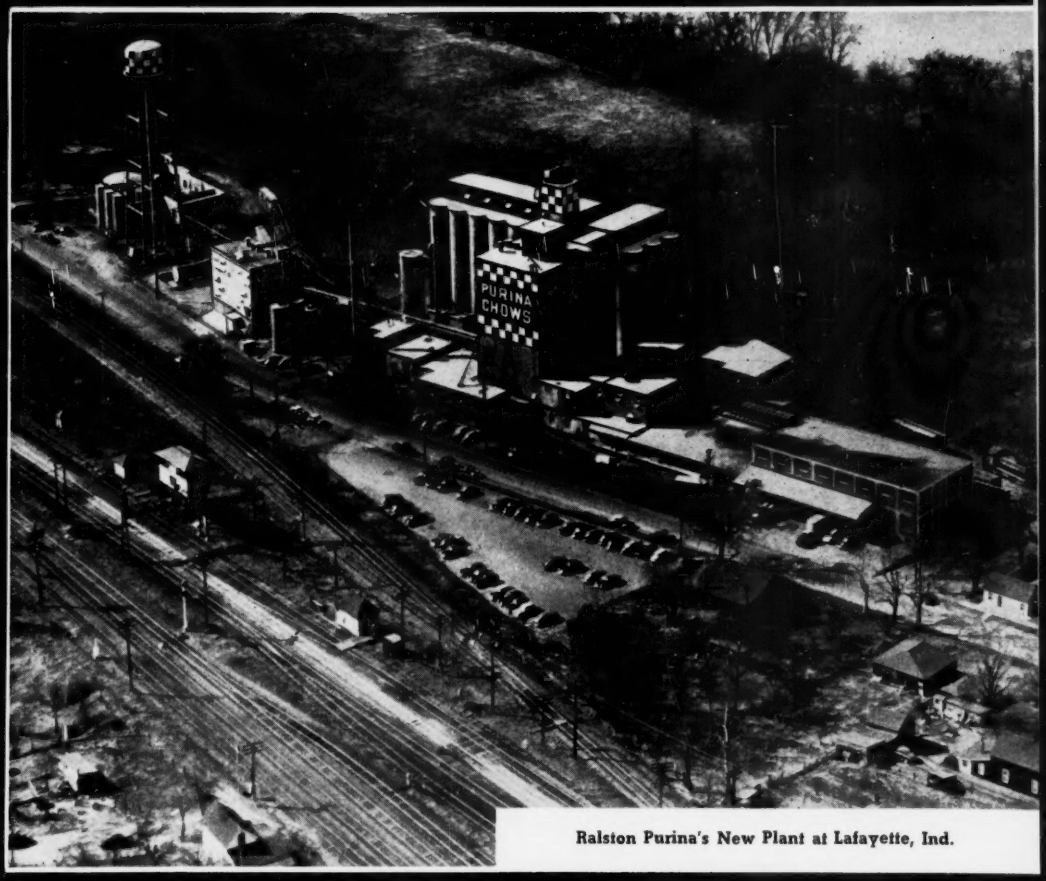
The Soybean Digest

OFFICIAL PUBLICATION • AMERICAN SOYBEAN ASSOCIATION



Ralston Purina's New Plant at Lafayette, Ind.

JULY • 1952

VOLUME 12 • NUMBER 9

What are the Advantages of Buying Phillips 66 Hexane?

● SOUND INVESTMENT

No light ends to lose—no heavy residue. You buy only active solvent with a typical boiling range spread of 5°F.

● TOP QUALITY

Rigid solvent specifications prevent contamination—add no foreign tastes or odors to your oil or meal. It's pure, clean, water-white!

● IMPROVED CONTROL

Phillips *66* Hexane has controlled uniformity to minimize your overall operating problems and reduce processing costs.

● ASSURED SUPPLY

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Write now for complete information on Phillips *66* Solvents for soybean, cottonseed, flaxseed, tung nut, rice bran, corn germ, castor bean, alfalfa, animal fat and other oil extraction industries.

PHILLIPS PETROLEUM COMPANY

SPECIAL PRODUCTS DIVISION • BARTLESVILLE, OKLAHOMA

THE Soybean Digest

REG. U. S. PAT. OFF.

HUDSON, IOWA

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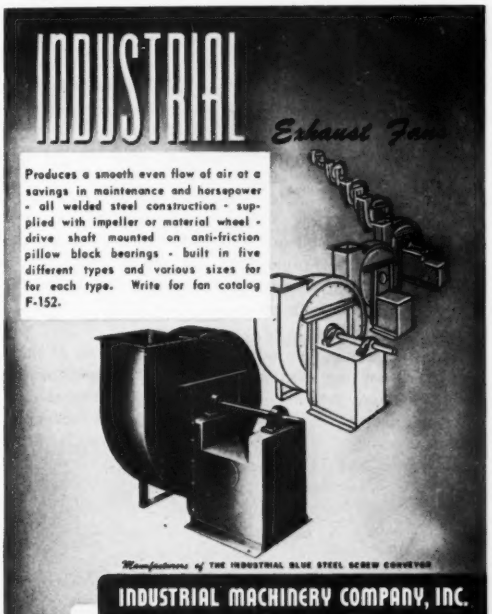
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EDITOR'S DESK

TERRIFIC THREAT TO SOYBEAN OIL

Three-cents-per-pound lower prices for soybean oil—three cents below prices which are already less than half the ceiling price placed on soybean oil a year ago—would be a reality if H.R. 6292, introduced by Congressman Havenner of California, were allowed to become law. This bill, which would remove the 3-cents-per-pound processing tax now levied at the first processing of all coconut oil, is a terrific threat to the soybean industry.

Much time, effort and expense by staff members and officers and directors of your Association have been expended during recent days in an attempt to defeat this bill. Referred to the Committee on Ways and Means of the House of Representatives, the bill had been held in committee since last February. Suddenly, due to pressure applied from outside the committee, the committee announced hearings on the bill. The announcement came late on Friday, June 20. The hearings opened at 10:00 A.M. daylight savings time on June 24. Clearly it was an attempt to railroad the bill, for not even the committee members knew about the hearings in advance. No time was allowed for research or preparation of documented statements.

Your Association filed a statement with the committee. It also protested to key committee members. Board members contacted committee members. There has been no announcement yet of committee action—or of a vote. It would, of course, have to go to the floor of the House and then to the Senate. Passage in this session seems highly improbable. But it is always a possibility.

Passage of H.R. 6292 would put the soybean industry right back where it was in the early 1930's, competing with the very cheap tropical oils. The industry as we know it today was built during the period when the 3-cents-per-pound processing tax applied. It enabled us to become self-sufficient in fats and oils, and to become net exporters. As a nation we can never again afford to rely on sources of fats and oils located half-way around the world. Our own self-protection, and our efforts to promote a free world, demand that we be strong. A part of that strength is founded on our own supplies of fats and oils.

Many arguments are advanced by proponents of the bill. They say that coconut oil does not compete with soybean or cottonseed oil. But there is no question about competition with coconut oil 3 cents per pound cheaper! They say coconut oil is not adapted to the manufacture of shortening and margarine, and that new knowledge of the production of those products eliminates coconut oil. That listens nice! But what about the one manufacturer of margarine who is now producing a product which he is proudly advertising as a product of coconut oil? At 3 cents per pound less the competition would force other manufacturers to follow suit. They would have no choice.

All fats and oils are interchangeable up and down the scale. The uses of and prices paid for one oil affect all others. Removal of the 3-cents-per-pound processing tax on coconut oil, through passage of H.R. 6292, would lower the price 3 cents per pound, would automatically tend to lower the price of our product likewise. Do we want soybean oil 3 cents below present levels?

Unless ours and the other oilseed and animal fat industries do something about it we are going to have it! Perhaps not in this session, but a similar bill will be introduced when the new Congress convenes, and will be pushed with all possible resources.

And tied in with lower soybean oil prices will of necessity be lower soybean prices—and lower acreage. Lower acreage means less soybean oil meal.

We have our job cut out for us. Our industry, together with allied groups, was responsible for the passage of legislation levying the processing tax. Some of the men still in the industry were responsible for that legislation. Now we are faced with the necessity of protecting it.

ESTIMATE ON CROP OFF AGAIN

It has happened again! Each year for the past several years we have pointed it out. Each fall we have called attention to it. But it happens again and again! The system needs revision.

Soybean prices spurted during the past month. All those soybeans that were supposed to be in storage just were not there. Buyers found it necessary to bid up prices in order to get supplies. The 1951 crop was overestimated. There were never, in our humble estimation, as many soybeans as the government figures showed. Private estimates, in some cases, went even higher. Now those bushels cannot be found. It has thrown the calculations of the industry off base—some firms expecting to pick up sufficient beans to carry them through to the new crop will not be able to do so.

Our crop estimates on soybeans have not been as accurate as on some other crops. The system must be revised so it is reliable. Each year it misses in about the same way. The man who has learned to discount the crop figures, hold his beans for the squeeze which invariably has come at this time of year, has profited. He should not find it necessary to disregard government figures in order to do so.

PLANS FOR ASA'S 32ND UNFOLDING

Experimental fields have been planted. Speakers are being engaged. Exhibit booths are being reserved at a rapid clip. Room reservations at the Purdue Union and Hotel Fowler are being confirmed daily. It just all adds up to the normal preparations for the 32nd annual convention of ASA at Lafayette, Ind., on Sept. 9, 10 and 11.

Have you made your reservations yet? And circled those dates on the calendar, so you will make adequate preparations to be present? It is not too early. First come—first served! Details are carried on other pages of this issue. Program plans are shaping up in splendid shape. It promises to be a live-wire convention, streamlined and to the point.

Flora Nankel, Lenox, Iowa, after finding that Creative Processing uses up ⅓ of all farm products says:

"Would you ever imagine that Creative Processing ate up 600,000,000 bu. of corn last year?"

"Finding a market for all our corn is a place where processors give us farmers a lot of help. They take almost one-fifth of our whole U. S. corn crop and make it into something else useful. Every bushel of corn that is processed into starch, cooking oil, alcohol, feed, paste, corn or desserts—means a steady extra demand for corn—and a steadying effect on corn prices.

They showed me three new products made from corn. Two weren't even on the market three years ago. One goes into paint. Another is gluconoic acid for treatment of arthritis and rheumatism. A third is steep-water, now used heavily in the manufacture of penicillin. I raise a lot of corn, and I'm glad to see these new customers coming along to help keep my cash market steady.

"We figure we feed most of our corn, or sell it to other farmers to feed. That's right, but still more than a fifth is processed for other uses. It's the other way 'round on wheat, beef, cotton, dairy products, soybeans and the like—nearly all of them must be processed by someone to be used by someone else.

"That shows how life has changed from the pioneer days when farmers used up most of what they raised. And once they loomed and made their own clothes. Nowadays, we certainly depend on Creative Processing like Cargill does it to 'eat up' our farm products. You sure realize that when you stop to think that today three-fourths of what we raise is made salable by processors. My wife and I found out more about that when we toured some of the Cargill's 26 processing plants.

"I wouldn't like to live in those old days, I say, let us raise it, and let other fellows think of ways to change it and sell it."

"We saw a processing plant that was packing Mirsteel-Green treated Cargill Lawn Seed for the city trade (and country too). It grows better because it is treated. They showed me how this Creative Processing (plus creative marketing) is actually making a new market for thousands of extra pounds of farm-grown products—seeds like bluegrass, rye, lespedeza, and clover.

"And in the Nutrena Feed Mill at Minneapolis, we saw how this Cargill processing plant takes up to 31 different farm-grown ingredients and processes them into more than a hundred feeds for livestock and poultry. I see how making feed out of antibiotics, B-12, and all the other ingredients is getting way too complicated and scientific for me to risk on a home-mix basis.

"This is a Cargill linseed oil laboratory that we visited. The extra things that Cargill does to the raw linseed oil after they crush it out of flaxseed would amaze you—treated, boiled, strained, dissolved, chilled, had things added, or been added to something. This processing means many more ways the oil can be sold and used—better markets because of Cargill Creative Processing."

"We looked at this chart of the increase in non-farm population. It checks with the other figures that show more than 75% of all farm products are processed. As a farmer, I was interested to see that the 26 Cargill factories and processing plants are all close to the growing areas of the farm products they handle. That makes more local markets for us. Besides Cargill's Grain Marketing Division sells our crops to other processors all over the world."

"We farmers are growing and selling four times as many soybeans today as we were in 1930, thanks largely to new uses which Creative Processing has developed. Cargill, as a leading processor of soybeans, sees them go into more than 100 useful items—from plastic buttons and shortening to long-wearing refrigerator gaskets and dog food. Every time our countries and dog food. Every time Creative Processing pulls more stuff from our farm it helps improve farm prices."

CARGILL, Creative Processors of Farm Products

Processing and Grain Marketing Offices in Minneapolis and 35 other cities

Cargill CREATIVE PROCESSING

This is how Cargill is telling the importance of processing and processors to farmer-readers of papers like The Farmer, Wallaces' Farmer, Dakota Farmer, etc.

GROWERS

DNOSBP Most Effective

Which of the new chemicals will kill weeds in soybeans without killing the soybeans as well?

C. J. Willard of the Ohio Agricultural Experiment Station summarizes in Ohio Farmer the results of tests on over 2,000 test plots over a four-year period at Ohio:

1—Soybeans are too sensitive to 2, 4-D for any possible use of it post-emergence. In the Cornbelt with its uncertain weather it is not recommended as a pre-emergence spray, though under the right weather conditions it can give results that are ideal.

2—DNOSBP or "Premerge" has been the most uniformly satisfactory pre-emergence herbicide. It has given some damage to soybeans in wet seasons, but has not reduced the yield of threshed soybeans. Applications in the range of five to ten pounds active ingredients per acre have been successful, with six to seven pounds a good average.

DNOSBP can be applied more effectively and safely if the field is cultipacked and harrowed after planting. On rowed soybeans, a considerable economy can be achieved by applying it only over the row.

3—Various formulations of IPC and mixtures of IPC and 2,4-D have not given satisfaction.

4—E.C. 3740, Endothal gave fairly promising results, but more tests are required before it can be recommended.

5—CMU and Chloro-IPC have been tried, but further tests are needed before definite recommendations can be made.

Spray for Weed Control

Weed control should be the most important objective for pre-harvest spraying of soybeans, F. W. Slife, instructor and first assistant in crop production at the University of Illinois, told custom spray operators recently.

Slife spoke at the fourth U. of I. custom spray operators' training school.

Although many reasons are given to justify the use of pre-harvest sprays for soybeans, weed control is most important. There may be some demand for pre-harvest sprays on soybean fields that are free from weeds, but the volume of business will not be very large since an early-maturing variety probably would serve just as well as chemicals in advancing the maturity date, Slife said.

Using chemical sprays to dry up growing weeds before harvest also will facilitate combining.

Effect of pre-harvest sprays on the chemical composition of soybeans was discussed by J. L. Cartter, senior agronomist with the U. S. Regional Soybean laboratory at Urbana.

Extensive research has been conducted on the weed-killing effect of several chemicals and good results have been obtained. In many cases, said Cartter, spray treatment has made early combine harvesting possible on fields that otherwise could not have been harvested until after frost.

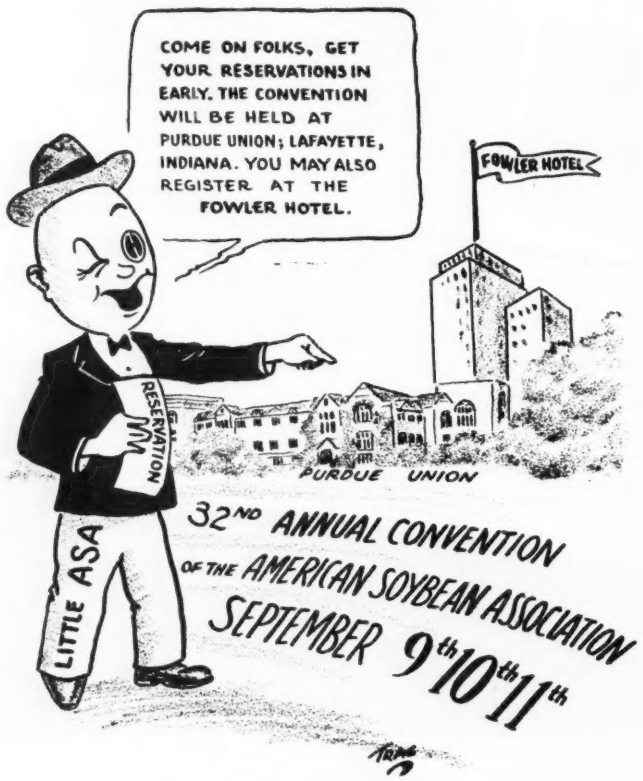
Ark. Land and Soys

More cropland is adapted to soybeans than to any other crop in the northeast Arkansas and southeast Missouri Delta area, according to information compiled by the county agents of the area.

Total cropland in the area is 2,343,813 acres; and 2,076,058 acres are adapted to soybeans; 1,938,551 are adapted to cotton; and 1,643,957 to corn. However, cotton is first, soybeans are second, and corn is third in actual acreage.

This and considerable other information about the crops and live-

It's Time to Make Plans!


COME ON FOLKS, GET YOUR RESERVATIONS IN EARLY. THE CONVENTION WILL BE HELD AT PURDUE UNION; LAFAYETTE, INDIANA. YOU MAY ALSO REGISTER AT THE FOWLER HOTEL.
FOWLER HOTEL
RESERVATION
PURDUE UNION
LITTLE ASA
32ND ANNUAL CONVENTION
OF THE AMERICAN SOYBEAN ASSOCIATION
SEPTEMBER 9th 10th 11th

1952 SEPTEMBER 1952						
SUN	MON	TUE	WED	THUR	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Are you remembering the dates? The American Soybean Association's 32nd convention at Lafayette, Ind., Sept. 9-10-11?

stock of the area is included in the 1951-1952 Annual Survey of Agriculture and Industry in northeast Arkansas and southeast Missouri Delta, issued by the First National Bank of Blytheville, Ark.

The book calls the area "one of the world's most fertile and most productive agricultural areas."

"Perhaps nowhere else," according to the book, "is the soil so capable of growing successfully such a wide variety of grains, fruits, and vegetables, as well as cotton, and supporting substantial herds of cattle."

The counties covered with statistics on production in each county are Mississippi, Greene, Craighead, Clay, and Poinsett in Arkansas; and Pemiscot, Mississippi, New Madrid, Dunklin, Stoddard, and Scott in Missouri.

The National Cotton Picking Contest is featured and there is a strong plug for Blytheville, the "city with a future."

More Storage in South

Each year North Carolina grain and soybean growers sacrifice their crops because of a lack of storage either at the farm or market, as is true in many other parts of the South.

But this situation is rapidly disappearing, according to Southern Planter.

Ten storage bins are being erected in Newton, Catawba County, N. C., by G. D. Drum, local flour mill operator, at a cost of about $25,000.

George Kendall, Stanly County, is erecting four concrete bins with a capacity of 15,000 bushels. The bins are equipped with elevators and will have mechanical drying equipment. He plans to rent most of this storage to local farmers.

In Wilson County, a national grain company with storage silos built of concrete having a capacity of 500,000 bushels is buying corn the year around and soybeans and small grain in season. The same company also has just completed another plant in Washington, Beaufort County, with a capacity of 200,000 bushels.

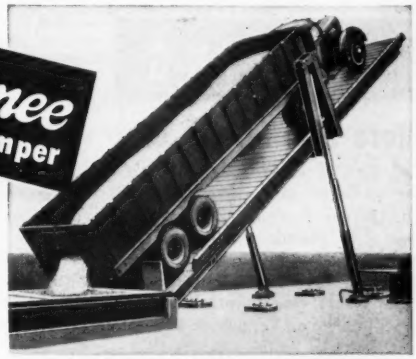
Indications are that the crops of many parts of the South will soon find storage space, and that the present expansion in soybeans, corn and small grains will continue.

Contest in Missouri

A 1952 Soybean Achievement Program for an eight-county area in northeast Missouri has been announced by Missouri Farmers Association Cooperative Grain & Feed Co., Mexico, Mo. Entries closed July 1.

Participation is limited to the following counties: Audrain, Monroe,

Kewanee Hydraulic Dumper



- Unloads all sizes of Trucks and big Tractor Trailers.
- Sizes—40′, 45′ and 50′ Platforms. Other sizes special.
- Capacities to 100,000 lbs.
- Scale and Non-Scale Types.
- TWIN Hydraulic Power Units.
- Pit and Pitless Models. Pitless reduces foundation costs.

UNLOADS all sizes of Trucks and big Tractor Trailers in a "jiffy." Takes all the time-stealing hard work out of unloading... eliminates waiting time and keeps trucks "on the go."

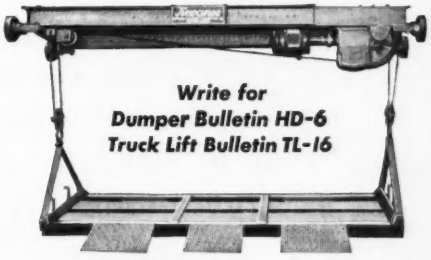
Evidence of KEWANEE performance and economy is overwhelming. It is substantiated by successive repeat orders from outstanding firms who have installed them in all their plants.

One elevator reports unloading over 1,000,000 bu. of grain in one month's operation with a two man crew, averaging over 100 trucks each working day.

This New KEWANEE Pitless Model cuts foundation costs to a minimum.

Every Trucker and Grower is a real booster. They appreciate "no long waiting in line" in busy harvest seasons and they tell others. It attracts new customers, widens your territory and expands your volume.

WRITE FOR BULLETIN — find out how KEWANEE will cut your unloading costs.



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- Large, deep flanged Winding Drums. Uniform winding.
- Cut Worm Gear Reducer.
- Crucible steel Lifting Cables, extra flexible.

ENGINEERED for easy operation and dependable performance, backed by 31 years' know-how in the grain trade.

Extra strength channel steel frame provides rigid support for operating mechanism. All working parts are below the frame, permitting maximum lift.

Telescoping frame adjustable every 2″ for driveways 11′0″ to 15′6″. New heavy duty Cradle of greater strength and utility. Strong lifting cables.

Whatever your unloading problem, there's a KEWANEE adaptable to it. We manufacture many different models to meet any condition.

KEWANEE Engineers can suggest a type best suited to your problem. Write for Free Bulletin and full information.

KEWANEE MACHINERY & CONVEYOR CO., Kewanee, Illinois

Callaway, Randolph, Montgomery, Boone, Ralls and Pike.

A gold cup trophy and $100 in cash will be awarded to the soybean champion, as well as $140 and trophies to other winners in the adult and junior farmer classes of this program.

Last year Wesley Attig of Ralls County was high man with 45.16 bushels of soybeans per acre.

The contest is sponsored by the MFA Cooperative Grain & Feed Co. in cooperation with the state extension service and vocational agricultural program.

FEEDING

More Gain from Creep

A special creep ration for pigs during the last six weeks of the suckling period resulted in an average gain of 6.3 pounds more per pig than a similar group of pigs that received the same ration as their mothers in a self feeder, experiments at the Missouri College of Agriculture indicate.

The pigs on the special creep ration consumed a decreasing percentage of protein and an increasing percentage of corn and oats as they neared weaning age.

The pigs were fed from a creep divided into three compartments. One contained shelled yellow corn, a second rolled hulled oats, and the third a protein supplement with 30 percent fish meal, 30 percent dried buttermilk, 30 percent soybean oil meal, 4 percent Aurofac, 4 percent minerals and 2 percent codliver oil.

Make Own Protein?

We've known for a long time that green plants can build amino acids of which proteins are derived. It was thought that animals could not create their own amino acids.

In a release No. 741, USDA scientists in Bureau of Animal Industry, using sulfuric acid containing radioactive sulfur injected into hens, tell how they found traces of it in the proteins of the eggs laid by those hens. If livestock can build some of their needed proteins themselves, it should make a difference in the whole picture.

THE COVER PICTURE

The view shown on the cover is one that will be afforded to the people who attend the American Soybean Association convention at Lafayette, Ind., Sept. 9 to 11.

The photo shows Ralston Purina Co.'s new solvent extraction plant and Chow mill at Lafayette. The new solvent soybean unit replaces the old, less efficient mechanical Expeller unit that had been in continuous operation for a number of years.

In announcing the new unit at Lafayette, Donald Danforth, president of Purina, stated that soybean oil meal is one of the most important ingredients used in Purina Chows. He said, "Since the Expeller process of producing soybean oil meal was fast becoming obsolete, it seemed necessary to replace the Expeller facilities at Lafayette with a solvent plant in order to best serve the interest of Purina's customers."

Elaborate safety devices have been built into this plant. It's equipped with automatic, deluge fire fighting protection, and the best equipment and operating safety rules are used to prevent sparks or flames.

STAR PERFORMERS for your every container need
Fulton QUALITY BURLAP BAGS
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FULTON QUALITY COTTON BAGS
USED BURLAP AND COTTON BAGS
FULTON MULTIWALL PAPER BAGS
EAGLE SAIL TWINE AND
FULTEX TARPAULINS
Fulton QUALITY COTTON BAGS
Fulton BAG & COTTON MILLS
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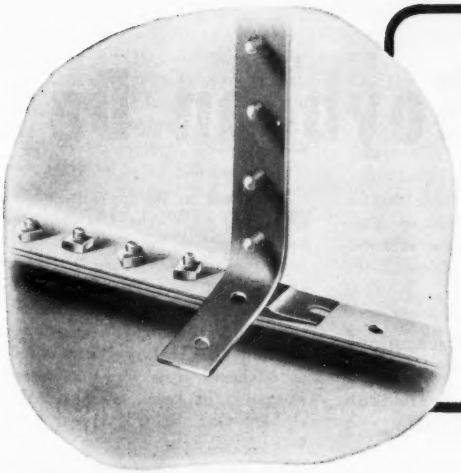

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for your profit protection!

Another Butler Bolted Steel Grain Tank Profit Feature

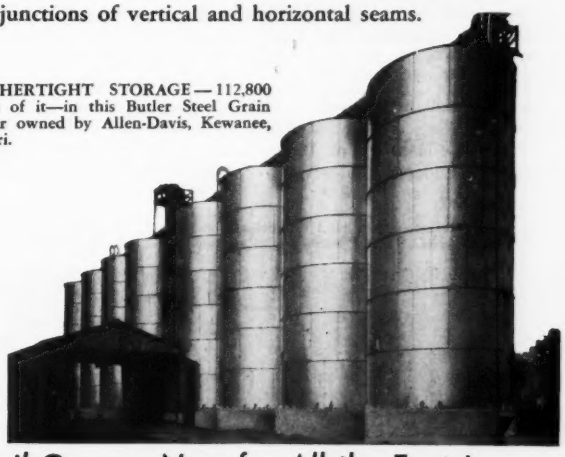
WEATHERTIGHT—Butler Grain Tanks protect your grain from damage, and that means profits for you. Here's how... tank sections are precision-formed, fit tightly together. Special pre-punched strip-rubber gaskets are placed between all outside metal-to-metal seams. And to doubly assure weathertightness—specially designed gaskets and cement seal all 3-ply junctions of vertical and horizontal seams.

Butler Tank Design Features Mean Savings and Profits for you!

- **FAST, EASY ERECTION...** up in days instead of weeks.
- **LOW INITIAL COST...** for savings from the start.
- **PRACTICALLY NO MAINTENANCE EVER REQUIRED...** for savings every day.
- **STRUCTURALLY STRONG...** for longer life, better long-term investment.
- **FIRE-SAFE...** for lower insurance rates.
- **EASILY FUMIGATED...** prevent costly grade losses.

In Many Sizes
To Meet Your Needs

WEATHERTIGHT STORAGE—112,800 bushels of it—in this Butler Steel Grain Elevator owned by Allen-Davis, Kewanee, Missouri.



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ASA'S 32ND CONVENTION SEPT. 9-11

11th Is Corn, Soybean Day

"Where are soybeans going?"

A vitally important question this year in the face of international uncertainty . . . and the political wars now upon us.

Where are soybeans going? The question confronts us from a thousand angles.

Many of the angles will be considered during the three big days of the American Soybean Association's 32nd annual convention at Purdue University, Lafayette, Ind., Sept. 9, 10 and 11.

Formal sessions will be held in the Purdue Union Tuesday and Wednesday, Sept. 9 and 10. The field day will be Thursday, Sept. 11.

The convention has been given no formal theme because of the diversity of subjects to be covered by nationally and internationally known experts in the many fields affecting soybeans.

But there will be a panel on the subject of "Where are soybeans going?" the afternoon of Sept. 10. Experts will consider the subject thoroughly and then it will be thrown open to the convention in what should be one of the most informative and interesting sessions of the three days.

Panel members will discuss:

What is the price outlook for soybeans?

How many soybeans can we grow without damaging our soils?

How much soybean oil meal will the markets absorb in the next several years?

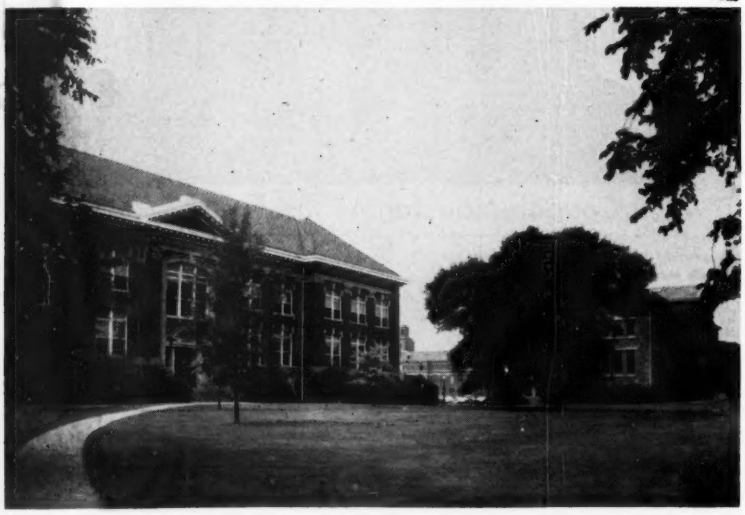
How many soybeans can we export?

What will happen to the soybean oil market?

This will be a session you won't want to miss.

Another panel will consider U. S. grading standards for soybeans. A producer, a processor and a handler will take part. This should offer a good chance for an airing of this somewhat controversial subject.

Purdue University Agricultural Experiment Station (left). At right is Agricultural Hall. Agricultural Chemistry Building is in the background between these two buildings.



A convention feature will be the appearance of Wayne Darrow, who has been writing the Washington Digest pages for the Soybean Digest for a number of years. Darrow is a veteran on the Washington scene which he has been covering for farmers for over a quarter century. He will speak on soybeans from the Washington viewpoint, of keen interest in this election year. He will appear Sept. 9.

Government research on soybeans will be covered by M. G. Weiss, principal agronomist of the USDA Bureau of Plant Industry, Beltsville, Md.; and Reid T. Milner, director of the Northern Regional Research Laboratory, Peoria, Ill. Milner will bring the convention up-to-date on soybean research work at the Laboratory. Weiss will talk on soybean breeding.

A report on U. S. soybean markets as affected by world conditions will be given by Paul E. Quintus, head of the fats and oils division of the international commodities branch of USDA's Office of Foreign Agricultural Relations. Quintus attended the International Association of Oilseed Crushers Conference in Copenhagen, Denmark, in June. His talk will be based on information obtained there.

The foreign market for soy protein will be touched on by E. Mitchell Learmouth of British Soya Products, Ltd., London. His subject will be, "Soy Protein in British Foods."

The annual banquet will be held in the Purdue Union Wednesday evening, Sept. 10. A big attraction will be the Purdue University glee club, now on a two-month tour of Europe.

The full convention program will be carried in the August issue. In the meantime get your room reservations in.

Write direct to Purdue Union or Fowler Hotel at Lafayette, Ind.

Field Day

The third big day of the convention will be known as "Corn and Soy-

bean Day" and will feature a trip to the new Purdue University Agronomy Farm. The day will coincide with the annual corn and soybean field day for Indiana farmers held at Purdue each September.

Plots are being set up by the Purdue agronomy staff just for the field trip. During the morning various experiments and demonstration trials will be visited by guided groups.

Plots will include variety tests of all varieties recommended in the Midwest. Other tests will include:

Comparison of row widths.

Alternate rows of late and early varieties.

Defoliation by chemicals.

Chemical weed control.

Soybean diseases.

Chemical seed treatment on good and poor seed.

Fertility treatments.

Soybean breeding.

Noon lunch will be served at the Agronomy Farm, and the afternoon program will include talks by Geo. M. Strayer, secretary-treasurer of the American Soybean Association, and George Scarseth, director, Farm Bureau Research Association. The title of Scarseth's talk will be, "What's Happening in Our Corn Fields."

Field day visitors who go direct to the Agronomy Farm are reminded that Corn and Soybean Day will be held at the new farm and not the old Soils and Crops Farm. The new farm is located on U. S. Highway 52 about six miles northwest of West Lafayette. The entrance is marked by a plaque. A prominent feature is the maple-lined entrance driveway that leads north to the farm buildings.

Exhibits

Advance sales of exhibit booths have been heavy and booths still available were going rapidly at press time. They were being reserved by firms anxious to display their goods and services for the soybean industry.

The diagram shows the 43 booths and their location opposite the North Ballroom meeting room, in Purdue Union. The booths that have been reserved are listed in the next two columns.

For booth reservations or information phone, wire or write George McCulley, business manager, American Soybean Association, Hudson, Iowa.

1—Burrows Equipment Co., Evanston, Ill.

2—American Mineral Spirits Co., Chicago, Ill.

3—Blaw-Knox Co., Pittsburgh, Pa.

4, 5—Butler Manufacturing Co., Kansas City, Mo.

6—Nickel Plate Road, Cleveland, Ohio.

7—Agricultural Laboratories, Inc., Columbus, Ohio.

8—The Soybean Digest, Hudson, Iowa.

9—A. T. Ferrell & Co., Saginaw, Mich.

11—Merrill Lynch, Pierce, Fenner & Beane, New York, N. Y.

12—William H. Banks Warehouses, Inc., Chicago, Ill.

13—V. D. Anderson Co., Cleveland, Ohio.

14—Corn States Hybrid Service, Des Moines, Iowa.

15—Arid-Aire Manufacturing Co., Minneapolis, Minn.

16—Dave Fischbein Co., Minneapolis, Minn.

17—Max Katz Bag Co., Indianapolis, Ind.

18—Archer-Daniels-Midland Co., Minneapolis, Minn.

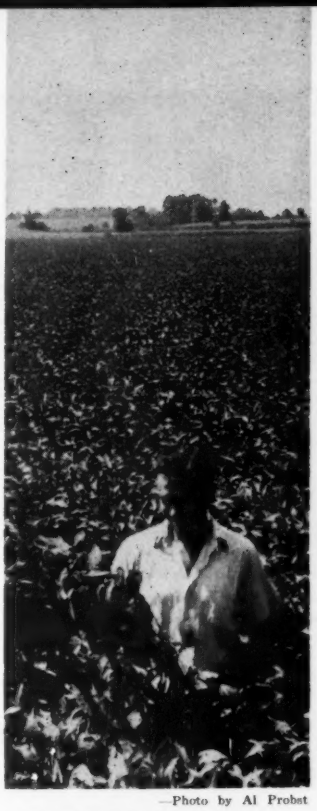
19—French Oil Mill Machinery Co., Piqua, Ohio.

20—Urbana Laboratories, Urbana, Ill.

21—Seedburo Equipment Co., Chicago, Ill.

23—Stephens-Adamson Manufacturing Co., Aurora, Ill.

34—National Association of Margarine Manufacturers, Washington, D. C.



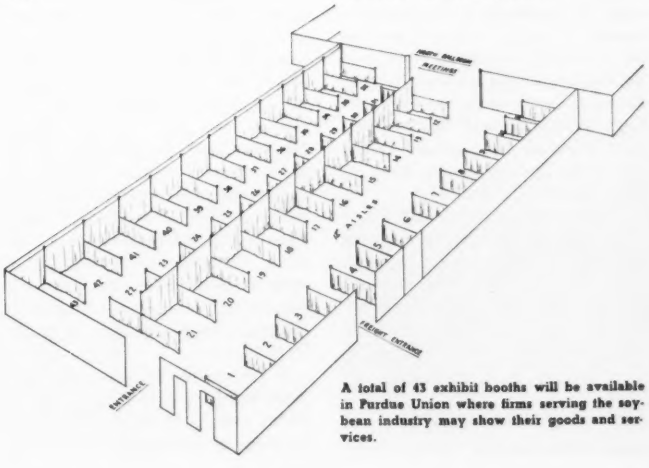
—Photo by Al Probst

Bernard Wagner, Evansville, Ind., in a multiplication field of Perry soybeans that averaged 43 bushels per acre. Purdue was one of the cooperating stations that brought out Perry.

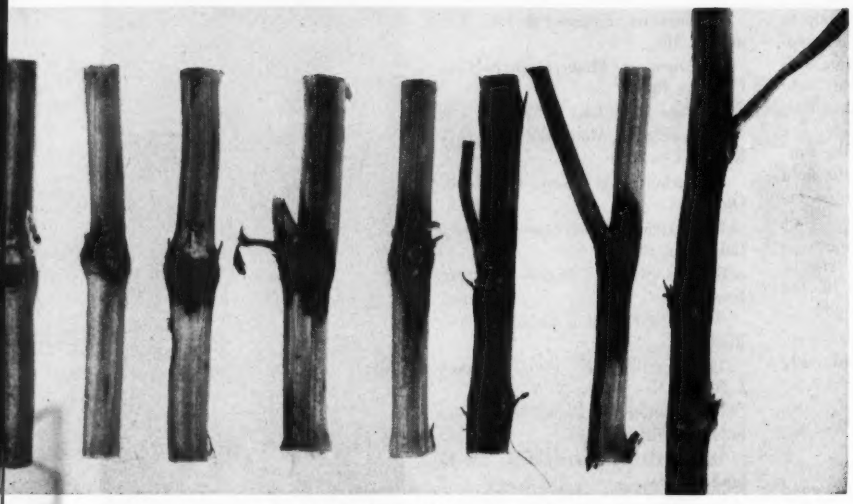
35, 36, 37—Penola Oil Co., Detroit, Mich.

39, 40—J. E. Dilworth Co., Memphis, Tenn.

41—Gruendler Crusher & Pulverizer Co., St. Louis, Mo.



A total of 43 exhibit booths will be available in Purdue Union where firms serving the soybean industry may show their goods and services.



Stems of soybean plants collected out-of-doors in August 1951, showing early-to-late stages of Stem Canker. Infection in all cases has taken place either through a leaf scar or at the junction of a lateral branch with the main stem.

STEM CANKER

A Disease of Increasing Importance On Soybeans in Ontario[1]

By A. A. HILDEBRAND[2]
Laboratory of Plant Pathology,
Harrow, Ontario.

I AM PLEASED at having been afforded this opportunity of presenting to you some aspects of the disease situation as it pertains currently to soybeans in southwestern Ontario. I am not going to confuse the issue by discussing all 16 or so of the diseases of the soybean that are known to occur in the area in question; rather, I would like to focus your attention on Soybean Enemy No. 1, the disease we now know as Stem Canker.

This disease has been smouldering for a considerable time on soybeans in Ontario. Formerly, we called it Pod and Stem Blight. Now, however, we know that we must make a distinction between Pod and Stem Blight and Stem Canker, not only because they are caused by different, though closely related, fungi, but also because of the difference in the severity of their attack on the soybean.

Stem Canker is by far the more serious of the two diseases. The causal fungus gains entry into the plant through scars left on the lower stem region where leaves have dropped off, or through injuries at the juncture of stem and branch, resulting from the bending or breaking of the latter. Having gained entry, the fungus pervades surrounding stem tissues, killing as it advances. Stem tissues so killed constitute a "roadblock" that stops the upward flow of water from the roots, and the upper foliage and seed-bearing portion of the plant dies essentially from the effects of drouth.

It can readily be understood that there will be a close relationship between severity of effect on seed and the stage of development of the plant when it is attacked by the parasite. If the attack comes earlier in the season when pods are still in the formative stage, seed development will be arrested with resultant loss both qualitatively and quantitatively. If, however, the attack is delayed until later in the season when the plant is approaching maturity, the effect on the seed may be virtually negligible.

Hawkeye, Blackhawk Susceptible

Stem Canker, after smouldering for years as I mentioned above, came into sharp prominence in 1949 especially on the variety Hawkeye, which for the first time was grown on a fairly extensive scale in Ontario. In 1950, as more and more Hawkeye was planted, the disease became correspondingly more widely prevalent. In 1951, the incidence of the disease was intensified by the introduction and fairly widespread planting of Blackhawk, a variety which under Ontario conditions is even more sus-

[1] Based on an address delivered, by invitation, at the meeting of the Second Annual Ontario Soybean Convention in Chatham, Ontario, Feb. 20. Contribution No. 1153, Division of Botany and Plant Pathology, Science Service, Department of Agriculture, Ottawa, Canada.

[2] Senior Plant Pathologist.

ceptible to Stem Canker than is Hawkeye.

The two varieties, by the way, have the same parentage, each being a selection from a cross between Mukden and Richland. In 1951, the attack of Stem Canker on Blackhawk was on occasion little short of spectacular.

Organism Residual?

When Stem Canker flared into importance so suddenly on Hawkeye and Blackhawk in Ontario, I was of the opinion at first that the disease might have been introduced into the province on or in the seed of the two varieties, most of which had been imported from United States sources. This supposition seemed to be supported by the fact that in a number of instances the disease was severe in stands of the two varieties, grown in soil that supposedly was virgin for soybeans.

Now, I am far from certain that the amount of disease that might have been brought in with the seed was of any real significance. Rather, I incline more strongly to the view that the causal fungus was already widespread in our soils. So long, however, as the more resistant varieties were grown, the fungus did not increase greatly and the disease did not become especially serious; but, with the advent of Hawkeye and Blackhawk, the fungus found varieties especially to its liking, and as has so often happened under similar circumstances with other hosts, the disease became widely and seriously epidemic.

The possibility of danger, as I see it, in the continued growing of these two varieties is not only that they are liable to suffer severely from the disease themselves but that they may encourage the build-up of the fungus and, as a result, the soil may reach such a stage of infestation that it will become difficult to grow even the less susceptible varieties.

Seed May Not Be Carrier

In support of the view that seed may not necessarily be a carrier agent of the disease, evidence furnished by an experiment that was carried out in the experimental plots at the Harrow Laboratory in 1951, is presented in Table 1. In 1950, an unusually severe outbreak of Stem Canker was encountered in a stand of the variety A. K. Harrow. Several pounds of seed were obtained from diseased and from healthy plants. The seed from the diseased plants was, in general, smaller than that from the healthy plants, but otherwise no appreciable difference was apparent from visual examination.

The weight of 1000-seed-lots from diseased and from healthy plants averaged 3.49 and 5.58 oz., respectively. A little mathematics showed that a bushel of seed from diseased plants would comprise some 275,000 seeds whereas the number in a bushel of seed from healthy plants would be about 172,000. A considerable number of the smaller seeds produced by the diseased plants would be lost in ordinary combining operations.

In the spring of 1951, seed from both lots was planted in outdoor plots in a design that would permit statistical analysis of results according to the methods employed by the technical agriculturist. Prior to planting, one lot of seed from the diseased plants was treated with Spergon, another with Arasan, at recommended rates. The results of the experiment, as mentioned above, are summarized in Table 1.

As Table 1 shows, germination of the seed from healthy plants was about 8 percent higher than that of seed from diseased plants. This difference was not reflected, however, in a corresponding increase in yield. As a matter of fact the seed from the diseased plants produced an appreciably higher yield than did that from the healthy plants. The highlight of the data in the table is, however, the fact that incidence of Stem Canker in the population of plants derived from the seed of diseased plants was not appreciably higher than that in the stand of plants originating from seed of healthy plants.

While it would be unwise to generalize too freely from the results of a single test, nevertheless, in view of the care with which the seed-lots had been selected for this particular experiment and with which the test had been carried out in all its phases, the evidence is regarded as indicating rather conclusively that seed from Stem-Canker-infected plants does not necessarily act as a carrier of the disease.

Table 1. Comparison of seed from healthy and from Stem-Canker-infected plants with regard to germination, incidence of the disease, and yield.

Source of seed	% Germination			% Stem Canker			Yield (Bu.)		
	Unt.	Ar.	Sp.	Unt.	Ar.	Sp.	Unt.	Ar.	Sp.
Healthy plants	81.8			6.1			28.2		
Diseased plants	73.1	73.1	73.0	6.8	8.5	5.9	30.9	27.7	28.3

Table 2. Percentage incidence of Stem Canker in experimental plots at Harrow on three different dates in 1951.

Variety	Aug. 17 94 days*	Aug. 24 101 days	Sept. 5 113 days
Harman	.0	.5	3.5
Harosoy	.8	1.5	4.5
A. K. Harrow	.4	1.5	5.2
Adams	.6	1.6	5.2
Harly	.6	2.0	6.5
Richland	1.4	2.2	7.6
Earlyana	.4	1.2	9.3
Lincoln	1.8	2.7	9.9
Monroe	.0	1.7	12.7
Hawkeye	2.1	5.0	15.2
Blackhawk	4.1	5.2	24.4

* Age of plants on date of count.

Varietal Difference

Each year at Harrow, varieties of soybeans that are being or are about to be grown commercially in southwestern Ontario are planted in the laboratory experimental plots and are kept under constant observation throughout the growing season, particular attention being paid to their apparent resistance or susceptibility to the various diseases that are prevalent in the district. A diseased plant is marked, as soon as noted, by a stake with a colored label, each disease being denoted by its own particular color of label. Such a system of marking makes readily possible at any time the determination and demonstration of the incidence of any particular disease.

In Table 2 is recorded the inci-

A greatly enlarged section of an overwintered soybean stem infected with Stem Canker. Note the beaks on necks which protrude from fungus spore-sacs in the stem. Stems such as this are a source of infection in the spring to succeeding plantings of soybeans.

dence of Stem Canker on 11 different varieties on three different dates during the 1951 season.

As Table 2 shows, up to the time the plants were 94 days old on Aug. 17 (the plots had all been planted on May 15), none of the varieties showed an appreciable amount of the disease except Blackhawk which was already infected to the extent of 4.1 percent. No marked change took place in the next seven-day period ending Aug. 24, except for a 3 percent increase in the case of Hawkeye. However, in the ensuing 12-day interval between Aug. 24 and Sept. 5, by which latter date the plants were 113 days old, the disease increased to a total of 3.5 percent for the apparently most resistant variety Harman, and to 24.4 percent for the apparently very susceptible variety Hawkeye.

To show the extent to which the disease increased between Aug. 24 and Sept. 5, Table 3 has been added. An examination of Tables 2 and 3 shows that not only did such varieties as Earlyana, Lincoln, Monroe, Hawkeye and Blackhawk show the highest total infection but they also became infected more quickly than the other varieties listed.

Table 3. Soybean varieties arranged in order of increasing incidence of Stem Canker between Aug. 24 and Sept. 5, 1951.

Variety	Aug. 24 101 days	Sept. 5 113 days	% Increase
Harman	.5	3.5	3.0
Harosoy	1.5	4.5	3.0
Adams	1.6	5.2	3.6
Harly	2.0	6.5	4.5
Richland	2.2	7.6	5.4
Lincoln	2.7	9.9	7.2
Earlyana	1.2	9.8	8.6
Hawkeye	5.0	15.2	10.2
Monroe	1.7	12.7	11.0
Blackhawk	5.2	24.4	19.2

Other counts of Stem Canker infection were made in varietal test plots and in numerous commercial stands variously located in the district. In general, these supplementary counts revealed that the order in which the varieties fell with regard to their relative susceptibility varied little from that shown in Table 2. Often, however, infection values differed from those shown in the table, but, despite these differences, they tended to remain relative so far as the different varieties were concerned, except for Hawkeye and Blackhawk, in which two varieties, more especially the latter, infection was disproportionately high.

The contrast between the apparent low susceptibility of Harman on the one hand and the strikingly high susceptibility of Hawkeye and of Blackhawk on the other, with Lincoln occupying a seemingly intermediate position, was of especial interest. As a final check for the 1951 season on this seeming relationship, an all-day count of the incidence of Stem Canker was made on Sept. 17 in representative stands of the varieties in question, variously scattered over an almost county-wide area. Blackhawk could not be included because the variety had matured to the point that it was no longer possible to distinguish with certainty between diseased and healthy plants. When the results of the counts were averaged, the incidence of Stem Canker for Harman, Lincoln, and Hawkeye was found to be 1.5, 7.0, and 33.5 percent, respectively.

Within recent weeks I have been afforded access to records of investigations—similar to my own—that are being carried out in Indiana. From these records may I quote this excerpt, "The variety Hawkeye has consistently been the most severely affected variety. In fact, *Diaporthe* stem canker was not considered an important disease until 1948 when the variety Hawkeye was grown on a large scale. The increased acreage of Hawkeye soybeans may have contributed to the prevalence of the disease."

How to Modify Disease

For Ontario growers there would seem to be at the moment two procedures to follow in bringing about a modification in the prevalence and severity of the disease. The first would be to avoid planting the most susceptible varieties and thus prevent a build-up of the fungus in their soils. The second would be a more strict observance of crop rotation and especially the avoidance of having soybeans follow soybeans on land where Stem Canker has made its appearance. The latter measure would also help greatly to hold in check and prevent the spread of another potentially dangerous disease, Brown Stem Rot, which is known definitely to be caused by a soil-inhabiting fungus.

In conclusion may I observe that only a few years ago in Ontario the question was often heard, "Are soybeans here to stay?" Somewhat later the statement was made, albeit somewhat doubtfully, "Soybeans are here to stay." Today, with 176,000 acres being grown in the province, the assertion is made almost without equivocation, "Soybeans *ARE* here to stay." Let us do everything in our power, including close attention to disease control, to make this a permanent reality and not a mere expression of wishful thinking.

Summary

Stem Canker as now distinguished from Pod and Stem Blight is current-

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BROKERS TO THE SOYBEAN PROCESSOR

ly the most serious disease of soybeans in Ontario. Prior to 1949 the disease was sporadic in its occurrence and only rarely serious. Coincident with the introduction and widespread planting of the variety Hawkeye in 1949, and of Blackhawk in 1951 the disease has flared into importance.

Evidence suggests that the causal fungus is residual in the soil of the province and may not have been introduced to any appreciable extent with the seed of the above-mentioned varieties. Varieties differ considerably in susceptibility, Harman being apparently the least susceptible of some 11 varieties closely observed in 1951.

Crop rotation and the avoidance of planting the most susceptible varieties are suggested as means of modifying the prevalence and severity of the disease.

Diseases in the Minn.-Iowa-Mo. Area

The root and stem rots are probably the most important group of soybean diseases in the three-state area of Minnesota, Iowa and Missouri, according to James M. Crall, associate pathologist at Iowa State College, Ames.

Included in this group are stem canker, brown stem rot, Rhizoctonia root and stem rot, and charcoal rot, says Crall, who spoke before the soybean processor conference at Ames last winter. Stem canker and brown stem rot are generally the two most important diseases in Iowa. Both have recently been reported in Minnesota, and very likely will become increasingly important there. Both diseases also occur in Missouri, stem canker having been found as far south as Sikeston and brown stem rot occurring most commonly in the river bottom lands of eastern Missouri as far south as St. Louis.

Rhizoctonia rot also occurs in all three states. It is of major importance in Minnesota and northern Iowa and of lesser importance in southern Iowa and Missouri. Charcoal rot has been found in both Iowa and Missouri but is important only in southeast Missouri in dry seasons.

Leaf Spots

The bacterial and fungus leaf spots are only slightly less important than the root and stem rots in these three states, says Crall. In Missouri, they may be considered even more important.

Bacterial leaf spots include blight, pustule, and wildfire. Both blight and pustule are present most years wherever soybeans are grown. Wildfire is less common but it has been found for the last several years causing serious damage in a number of fields in southeast Iowa. It is frequently a serious problem in southeast Missouri. In Iowa blight is generally more prevalent early in the season and pustule more prevalent about mid-season. Wildfire is found after Aug. 1, generally following pustule infection. In southeast Missouri particularly, pustule is considered a major problem, and in years that pustule is severe, wildfire is also usually more prevalent.

Crall said that brown spot and downy mildew are most common of the fungus leaf spots. Formerly of minor importance, brown spot has become increasingly severe in most of the North Central states during the last several years. It was found in almost all fields in Iowa in 1951. It caused about 50 percent defoliation in an experimental field at Columbia, Mo. Somewhat less prevalent and less severe is downy mildew. In 1951 it was found commonly in eastern Iowa and central and southeast Missouri. Both of these diseases also occur in Minnesota.

Frog-eye was found for the first time in Iowa in 1951. It occurs generally in Missouri but appears to be a threat primarily in the southeastern part of the state.

Phyllosticta and Alternaria leaf spots occur generally throughout the Minnesota-Iowa-Missouri area but are presently of minor importance, according to Crall.

Virus diseases of soybeans include bud blight, mosaic, and yellow mosaic. Bud blight was found rather commonly several years ago but has decreased in prevalence. Mosaic and yellow mosaic have never been diseases of major importance in the tri-state area, Crall says.

Among miscellaneous diseases are seedling blights, seed stains, and potash deficiency. Seedling blights are caused by various fungi, including Pythium species, Rhizoctonia, the anthracnose fungus, and the charcoal rot fungus. In most seasons the losses caused by seedling blights are small. The purple and other seed stains are common but relatively unimportant at present.

Potash Deficiency

Potash deficiency has become increasingly prevalent and locally may cause serious losses unless corrected by the application of potash fertilizers, says Crall. More general recognition of the fact that soybeans are heavy feeders on potash is needed.

Control measures are available or are being sought for the major soybean diseases, according to Crall.

Soybean lines with more or less resistance to the following diseases are now being used in federal and state experiment station breeding programs: bacterial pustule, bacterial blight, wildfire, downy mildew, purple seed stain, frog-eye, stem canker, and Rhizoctonia root and stem rot.

Crop rotation has proved of value in the control of brown stem rot and may be useful in the control of some of the leaf spots, such as brown spot.

Row planting, weed control, and other cultural practices for conservation of soil moisture have been suggested for control of charcoal rot, says Crall.

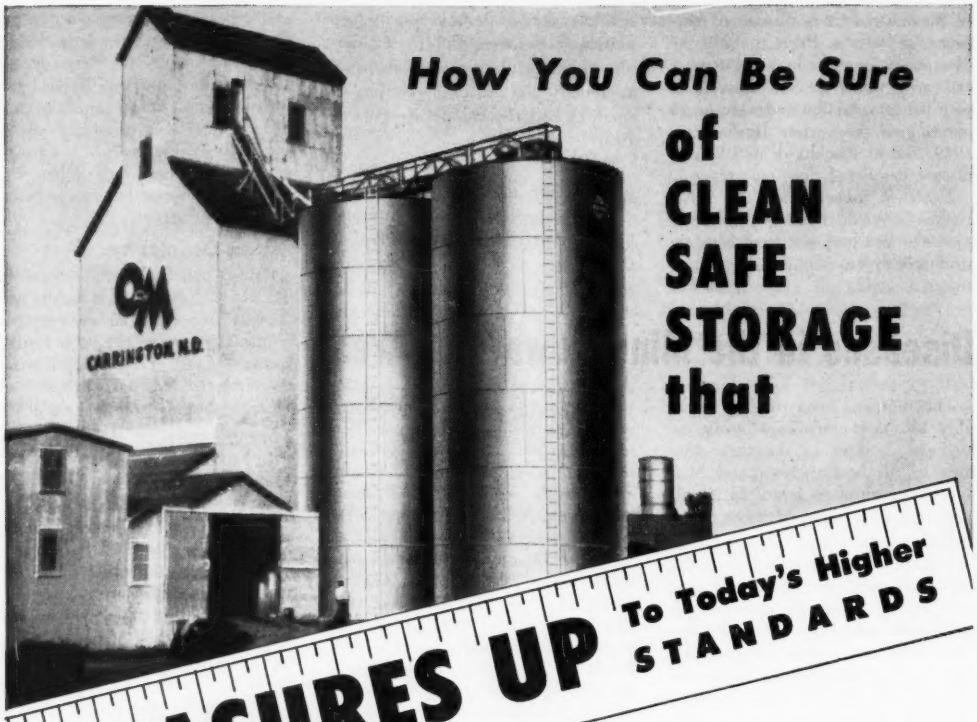
—sbd—

BELGIAN IMPORTS BIG

Imports of vegetable oilseeds into Belgium in 1951 amounted to 290,390 metric tons, according to Foreign Crops and Markets of U. S. Department of Agriculture. This is the largest volume on record and exceeds the 1950 importation by more than one-half.

About 25 percent or 72,000 tons of the total oilseed importation in 1951 was supplied by the United States. Most of this was soybeans (33,059) and flaxseed for oil (36,871).

The principal import was 77,580 tons of copra from the Philippines against 23,626 tons in 1950. China supplied 54,369 tons, mostly soybeans, flaxseed and peanuts. Flaxseed imports from Canada amounted to 40,825 tons.



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Ground cover during the growing season showing a comparison of S-100 with Dorman.

Dorman

NEW SOYBEAN FOR THE MIDSOUTH

The Dorman soybean, a new variety developed especially for the Upper Mississippi Delta and the Midsouth, has been released to selected growers in this area for an increase of planting seed, according to the U. S. Department of Agriculture. It is expected that fairly adequate seed stocks will be available to growers for planting in the spring of 1953.

Dorman is the tenth in a series of superior variety releases since about the beginning of World War II from the cooperative soybean breeding work of the U. S. Department of Agriculture and most of the agricultural experiment stations of the soybean growing states. These states, which include those from the Dakotas south to Texas, and east to the coast, except for New England, now have available an improved and adapted high-yielding and high-oil variety.

Other varieties in the recent series of improvements, adapted in belts from North to South, are Monroe, Blackhawk, Hawkeye, Adams, Lincoln, Wabash, Perry, Ogden, and Roanoke. Perry was released only last February.

Release of the new varieties has increased the average oil content of soybeans raised in this country by about one pound per bushel, and the acre yield about five bushels. Based on current production and prices, the National Soybean Crop Improvement Council recently estimated that one extra pound of oil extracted per bushel of soybeans processed annually in this country would equal 40 million dollars in added wealth.

Named for Mississippian

Named for Clarence Dorman, the late director of the Mississippi Agricultural Experiment Station, the new variety fills a gap that has existed in the soybean improvement picture. Its adapted area is between that of the varieties Perry and Ogden. It is well adapted in the alluvial soils of the Mississippi Valley and southeastern Missouri to northeastern Louisiana, and good yields also have been obtained on the prairie soils of Arkansas and on the Coastal Plains of the upper eastern coast of Virginia.

Compared with S-100

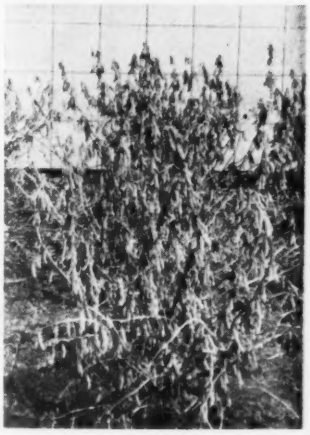
Seed yields of Dorman, as shown by field trials, usually have exceeded those of S-100, the widely-grown variety which Dorman will succeed. Yields of Dorman often have equalled those of Ogden, which is 14 to 18 days later in maturity. Dorman is approximately 10 days later in maturity than Perry.

Even more outstanding have been the advantages of Dorman in oil content, seed quality, and ground cover during the growing season. It has an oil content 2.5 to 3 percent higher than S-100, an advantage that amounts to 40 to 50 pounds more oil per ton of beans processed.

Like the other improved varieties in the recent 10-year series, Dorman is a result of hybridization or crossing of promising parent varieties or strains and the selection of superior plants from such crosses. Development of Dorman ends the first cycle in this phase of soybean improvement.

Varieties of soybeans produced in the United States up until about 10 years ago had been introduced largely from other countries. In finding

This picture shows the high seed yield of a mature Dorman soybean plant.



and making those selections the earlier plantsmen laid the foundation for soybean production over a wide area, and for its improvement by hybridization and selection. The earlier varieties used in the South, however, were largely for hay.

New Ones Coming

The second cycle of soybean improvement already is under way. Some of the improved varieties now widely grown are being exceeded in performance by experimental strains not yet released. In the Northern production belt, for example, new strains under test in uniform nursery plots are providing stiff competition for the variety Blackhawk, which was released in 1951. In the central producing belt, an experimental strain in current tests promises to exceed Lincoln considerably in both yield and oil content. Several other strains also appear promising.

The ground work for the variety Dorman was laid in 1941 when Dr. L. F. Williams made a cross between the variety Dunfield and Arksoy 2913 at the U. S. Regional Soybean Laboratory headquarters, Urbana, Ill. The second generation of the cross was grown at Stoneville, Miss., in 1943. The final selection and evaluation of Dorman was by Dr. Edgar E. Hartwig of the U. S. Department of Agriculture in cooperation with the Delta Branch of the Mississippi Agricultural Experiment Station at Stoneville.

Soybean research workers in Arkansas, Missouri, Tennessee, Virginia, North Carolina, and Oklahoma participated in testing Dorman in field trials. Seed is now being increased in Mississippi, Arkansas, Tennessee, and Missouri.

Oppose Removal of Processing Tax

The American Soybean Association has filed a brief with the ways and means committee of the lower House of Congress opposing removal of the 3-cent processing tax on imported coconut oil.

H. R. 6292 was introduced by Congressman Havenner of California and held in committee since February. Among its other provisions it would repeal the 3-cents-per-pound processing tax levied on the first processing of all imported coconut oil.

Suddenly on June 20 the committee announced hearings on the bill for June 24, with very little time for opponents to prepare briefs.

The American Soybean Association filed a statement in opposition to the passage of H.R. 6292. This is in line with the historic position of the Association favoring protection of domestic oils against cheap imported oils. (The Association was one of the groups instrumental in original passage of the processing tax on coconut oil.) See editorial page for further comment.

There has been no announcement of committee action, which would bring the bill out on the floor of the House.

Following is the Association's statement:

The American Soybean Association, representing growers and handlers of the soybean crop throughout the United States, is vigorously opposed to passage of H.R. 6292 because of the disastrous effect it would have upon our national economy and upon every segment of the soybean industry. Membership of this Association is located in 40 states, with the major concentrations of membership in Illinois, Iowa, Indiana, Ohio, Missouri, Arkansas, Minnesota and Mississippi. An estimated 700,000 producers of soybeans for the commercial market would be affected by passage of this bill.

During the period when this processing tax has been in effect, the soybean industry in the United States has grown from an infant to one which brings 900 million dollars per year to American farmers. For the first time in many decades the United States has become self-sufficient in fats and oils. During the war years we doubled and then redoubled soybean production in order to supply our own demands for fats and oils. Up to that time we had been dependent upon sources of supply which were located on the other side of the world. At Pearl Harbor those supplies were cut off.

It is the contention of the American Soybean Association and its membership that so long as there is unrest at any point in the world we in the United States cannot afford to ever again find ourselves in the position of relying on critical fats and oils supplies originating outside our borders. Adequate domestic supplies of fats and oils are vital to national defense.

Most American industry of today has been built upon a national policy in which tariff or subsidy has been an integral part. The American standard of living is a result. The processing tax on coconut oil, which would be repealed under passage of H.R. 6292, is no exception. It has merely given the American farmer and oilseed producer the same measure of protection from imports that

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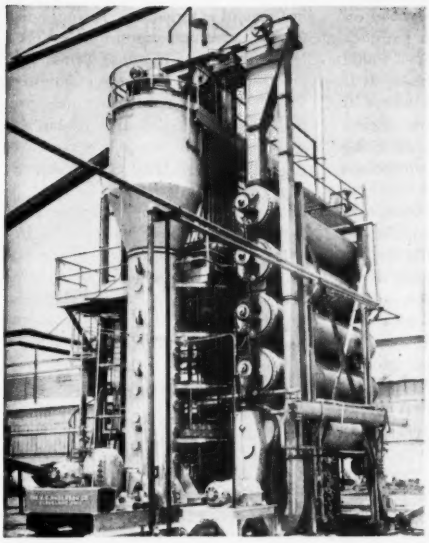

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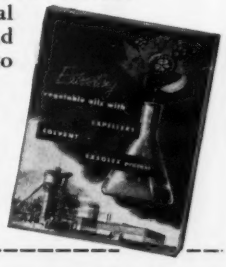

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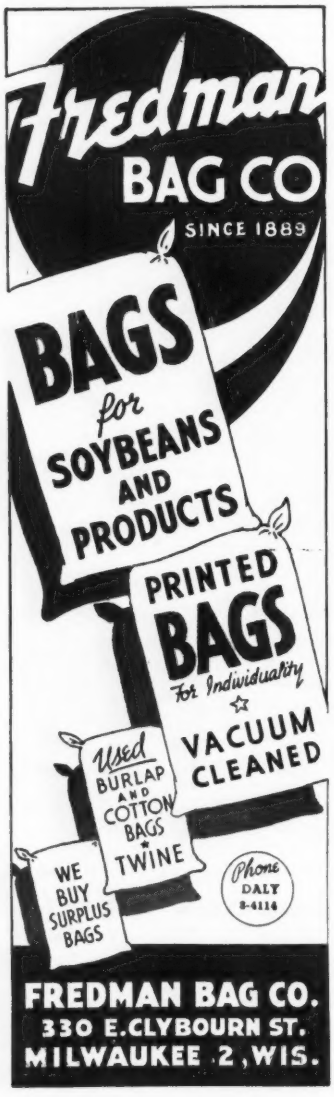
nearly every American industrial commodity has had from its inception.

Based upon assumed continuation of the processing tax on coconut oil as it now exists, the soybean processing industry of the United States has invested over 200 million dollars in equipment for processing the soybean crop. That figure does not include the many millions invested in storage and handling facilities. This processing equipment is located throughout the production areas, where the transportation charges are held to a minimum, and where the soybean oil meal is readily available in livestock feeding. Passage of H.R. 6292 would make this equipment valueless. It is not adapted to or located where it might be used on other commodities.



Our American standard of living and our defense effort are predicated on heavy livestock production. That livestock production is increasingly dependent upon adequate supplies of protein. Soybean oil meal is the major source of protein. Recent developments in the usage of vitamin B-12 and antibiotics have opened up a wide new vista of economical livestock production through the use of soybean oil meal, which contains the most complete and nearly balanced supply of the essential amino acids of any vegetable protein now in commercial production.

Every bushel of soybeans contains about 10 pounds of soybean oil and about 45 pounds of soybean oil meal. Without adequate markets for soybean oil there will be no production of soybean oil meal. Inadequate supplies of soybean oil meal can mean only higher priced and inadequate supplies of milk, meat and eggs. Continued high levels of livestock production are vital to the maintenance of our national economy. They can be continued only with adequate supplies of protein.

It is reasonable to assume that passage of H.R. 6292 and the removal of the 3-cents-per-pound processing tax on the first processing of coconut oil would mean 3 cents per pound cheaper coconut oil. Because all fats and oils are more or less interchangeable in usage it would also mean 3 cents per pound cheaper soybean oil and cottonseed oil. That would mean 30 cents per bushel less yield of end products from each bushel of soybeans. Soybean oil for many months has been selling at prices which are only approximately one-half the established ceiling price.

Soybean processing plants have been closing down throughout the nation in recent months because of the abnormally low prices at which soybean oil has been selling. The passage of H.R. 6292 would deal a death blow to an industry which is already reeling under low price structures.

The ultimate effect of the passage of H.R. 6292 would be lower prices for soybeans, greatly reduced soybean acreage, and thus inadequate supplies of domestically produced fats and oils in times of emergency. It would also mean inadequate supplies of soybean oil meal for the livestock production program to which we are committed. The producers of soybeans, as represented by the American Soybean Association, are unalterably opposed to the passage of H.R. 6292, and we urgently request that the bill not be allowed to leave the committee. We believe that the first interest of a free world is to keep America strong and self-sufficient. It cannot be done by destroying the American soybean industry, as would be done with the passage of H.R. 6292.

—sbd—

NEW LEVER BUILDING

This 24-story Lever Brothers headquarters of glass and stainless steel, which occupies the blockfront on the west side of Park Ave. between 53rd and 54th Sts. in New York City, was recently formally opened by the mayor.

The building is occupied solely by Lever Brothers Co. and its four divisions—Lever, Pepsodent, Good Luck Products and Harriet Hubbard Ayer, Inc. Lever House, a narrow tower of glass and stainless steel, has the appearance of an inverted letter T.

Lever gave most of the ground floor to the public with an open plaza and a garden with a willow tree, shrubs and flowers extending into the all-glass lobby. The landscaping is expanded to a third-floor terrace, which is planted with flowering crab apple and hawthorne trees and Japanese holly. The entire third floor is devoted to the terrace and an attractive cafeteria where Lever employees enjoy low-cost meals.

IS STALEY AD HEAD

A. E. STALEY III

The appointment of A. E. Staley III as advertising manager of the soybean division of the A. E. Staley Manufacturing Co., Decatur, Ill., corn and soybean processor, has been announced by Paul R. Ray, soybean division manager.

Staley, who is the son of A. E. Staley, Jr., president of the company, has been a copy writer and account executive in the Chicago office of Ruthrauff and Ryan, Inc., national advertising agency, the past two years. He was formerly a copy writer with the Hill Blackett agency and assistant advertising manager of the Burgess Battery Co., Freeport, Ill.

There has been no change in the direction of the company's package and industrial products advertising which has been handled since 1948 by Henry Volle.

— s b d —

ONTARIO BOARD CHANGE

The Ontario Soybean Growers Marketing Board has acquired its first full-time manager. K. A. Standing of Essex, named secretary-manager of the board after the resignation of Harry Pugh, is establishing an office in Chatham, reports the Chatham Daily News.

The work of the Board has expanded along with the increasing popularity of soybeans as a Canadian cash crop, Standing said. He was previously secretary of the Board on a part time basis. He said that Chatham was chosen for the Board office because of its central location in the soybean growing belt.

Chairman of the Board is R. H. Peck, River Canard, and the vice chairman is George Phillips, Muirkirk. Peck is also a director of the American Soybean Association.

The Board is sponsoring a scholarship at Ontario Agricultural College, Guelph, with the Canadian soybean processors to develop early maturing varieties suitable for new soybean growing areas.

The soybean crop could be doubled without any effect on the Canadian market, because twice as many soybeans are imported as are grown in Canada.

— s b d —

The 1951 Nigerian soybean crop which was traded in the market place totaled 296,300 bushels, according to USDA's Foreign Crops and Markets. The buying price for the next crop has been set at $50 per long ton.

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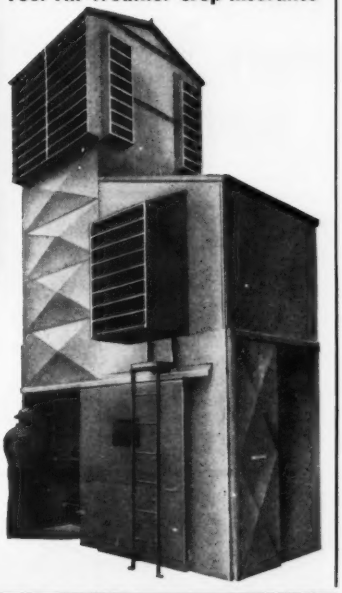

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CONVERT SWIFT MILL

Contracts have been let to convert the Swift & Co. oil mill at Memphis, Tenn., from a hydraulic press operation to a solvent extraction process, P. A. Laws, Swift district manager, and E. C. McGee, manager of the local mill, have reported.

The contract has been let to the French Oil Machinery Co. of Piqua, Ohio, which in turn has sublet a portion to Construction Management Inc. of Indianapolis.

Preliminary work has been started.

The changeover will place the extraction process at the mill on a year-around basis, Laws explained, and will permit the mill to process both cottonseed and soybeans.

The plan is to crush cottonseed during the normal season and then process locally grown soybeans for the remainder of the year.

Conversion of the plant will require all new equipment but will make use of existing buildings.

Construction will be of corrugated transite on steel framework and interiors will be open-steel gratings on steel supports.

A covered bridge of the same type construction will connect the new extraction building with the former hydraulic press building, which will be converted to seed and bean preparation and meal processing.

In addition to the new extraction and meal preparation machinery, a Hess drier will be installed for moisture reduction of soybeans during the soybean crush. Meal preparation machinery includes a desolventizing toaster for the purpose of removing all traces of solvent and for toasting of the meal to increase palatability.

—sbd—

CHANGE BY HUMKO

S. L. Kopald, chairman of the board, and Herbert Humphreys, president of the HumKo Co., Memphis, Tenn., have announced that plans are under way to exchange the stock of the HumKo Co. and of the Trendex Co. for stock of National Dairy Products Corp.

HumKo and Trendex will operate as completely independent affiliates of National Dairy, and will continue to serve their customers, both old and new, under the same management.

According to L. A. Van Bomel, chairman of the board, and E. E. Stewart, president of the National Dairy, this move is in line with National Dairy's policy of diversification into promising markets.

Founded by Kopald and Humphreys in 1930, HumKo initially produced only household shortening and in 1934 added the production of fully hydrogenated vegetable oil shortening for commercial baking companies.

Beginning in 1938, HumKo began production of margarine oil for margarine manufacturers and salad oils for the producers of salad dressings, mayonnaise, etc. Margarine oils and salad oils are made from refined cottonseed oil or soybean oil, or a combination of the two.

The impetus given to the use and improvement of margarine, and the improved legislative status of margarine, has brought steady growth to National Dairy's margarine business. The Kraft Foods Co. of Chicago, one of the major divisions of National Dairy Products, is a leader in the production of margarine and salad dressings.

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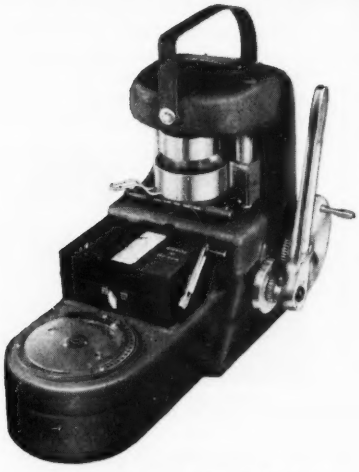

The Universal is now equipped with larger sample cup for testing larger samples. In most instances tested contents fall out when cup is inverted. Easily adapted to any Universal model.

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EUROPEAN IMPORTS

Imports of soybeans into Western Europe totaled 778,604 metric tons (28,608,506 bushels) last year compared with 271,248 tons (9,966,556 bushels) during 1950, according to USDA's Foreign Crops and Markets. The sharp rise resulted largely from greatly expanded imports from China (Manchurian beans).

The first postwar exports from China to Europe of any consequence began in 1950 when the Netherlands received 58,069 tons and other countries received smaller quantities bringing the total to 97,000 tons. By 1951, imports from China rose to 503,400 tons and China replaced the United States as the principal supplier.

Imports from the U. S. also increased in 1951 (from 148,186 to 237,786 tons) but the share supplied by the U. S. dropped from 55 to 30 percent. China's share rose from 35 percent in 1950 to 65 percent in 1951.

Other countries, mainly Brazil, accounted for some 10 percent of the soybeans shipped into Western Europe during 1950, and about 5 percent in 1951.

— s b d —

MOVE LABORATORIES

The Woodson-Tenent Laboratories, Decatur, Ill., has been moved to Chicago, Ill., in order to better serve the soybean industry. W. G. Wadlington, who was manager of the Decatur laboratory, has been transferred to Chicago as manager.

"We feel that Chicago is ideally situated to serve the soybean belt," E. H. Tenent said. "We are official chemists for the Chicago Board of Trade, and we feel that a laboratory in Chicago will be more convenient for processors who use the Board."

The Woodson-Tenent Laboratories also has laboratories in Memphis; Des Moines, Iowa; Little Rock, Ark.; Cairo, Ill.; Clarksdale, Miss.; and Blytheville, Ark.

The Chicago laboratory will specialize in the analyses of soybean oils, meals, tallow, greases, etc.

— s b d —

SOYBEANS: Imports into Western Europe by country of origin, 1950 and 1951* (Metric tons)

Country	United States		China		Other†		Total	
	1950	1951	1950	1951	1950	1951	1950	1951
Belgium	28,030	33,059	1,475	29,125	3,947	882	33,452	63,066
Denmark‡	44,560	———	17,120	90,552	3,850	111	65,530	90,663
France	20	94,588	———	42,134	1,708	1,019	1,728	137,741
Western Germany	45,926	60,939	19,319	223,561	146	6,344	65,391	290,844
Italy	———	9,537	1,017	28,740	280	317	1,297	38,594
Netherlands	17,596	26,935	58,069	54,046	3,963	447	79,628	81,428
Norway	12,054	12,728	———	———	8,373	7,009	20,427	19,737
United Kingdom‡	———	———	———	35,252	3,795	21,279	3,795	56,531
Total	148,186	237,786	97,000	503,410	26,062	37,408	271,248	778,604

* Preliminary. † Mainly Brazil. ‡ 1951 country breakdown subject to revision.
Compiled from official sources.
U. S. Department of Agriculture, Office of Foreign Agricultural Relations, Fats and Oils Division.

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STALEY APPOINTMENTS

Appointment of Clyde Thompson, well-known Midwestern feed sales executive, as manager of formula feed sales of the A. E. Staley Manufacturing Co., Decatur, Ill., corn and soybean processor, has been announced by Paul R. Ray, soybean division manager.

The Staley Co.'s formula feed sales have heretofore been supervised by H. T. Morris, feed department manager, who retired last month after 28 years as sales executive. Edward C. Lane, who joined Staley last December as feed department merchandising manager, has taken over Morris' duties as manager of soybean oil meal sales.

THOMPSON LANE

A resident of Gibson City, Ill., Thompson has been Western district sales manager of McMillen Feed Mills, a division of Central Soya Co., Inc. Since joining Central Soya as a weighmaster in 1939, he has come up through the sales ranks of that organization as a farm sales representative and a territory manager in both Illinois and Indiana.

Make Statement on Trichloroethylene

A statement on the biological effects of trichloroethylene extracted soybean oil meal fed to livestock was adopted without dissent by the more than 50 people attending a conference on the subject at the University of Minnesota May 27.

The meeting included a review of current research work being carried on at the University of Minnesota, Iowa State College, North Dakota State College, and the Northern Regional Research Laboratory.

The research was undertaken following reports of deaths of cattle that had allegedly been fed trichloroethylene extracted meal.

Among those taking part in the conference were representatives of the industries concerned, the American Veterinary Medical Association, the U. S. Department of Agriculture, the Food and Drug Administration, livestock sanitary boards, departments of health and agricultural experiment stations in states where the subject is a practical problem.

It was reported at the meeting that only one trichloroethylene plant is now in operation, and that its production is being consumed by the processor's own poultry flocks.

The following statement was adopted as a summary of current evidence and views of those present:

"The soybean has rightly been accepted for a long time as a valuable component of diets of animals and humans. In animal feeds the defatted residue of soybeans continues to be one of the most valuable sources of protein. The removal of oil from soybeans is carried out commercially either by pressing or by extraction with fat solvents. For the latter purpose a special grade of purified naphtha is employed successfully on a large scale and the defatted meal thus produced is used extensively for various industrial purposes, and in diets of man and animals. No evidence of harmful effects produced by naphtha extracted soybean oil meal has been presented when the meal is used according to recommended feeding practice.

"During the last few years another solvent, trichloroethylene, has been introduced in several smaller extraction plants in the United States for the removal of oil from soybeans. One of the principal advantages claimed for the use of trichloroethylene is the fact that in comparison with naphtha it is relatively nonflammable, thus requiring less extensive operational control measures. Trichloroethylene has been used for similar purposes earlier in Great Britain, Germany, Italy, and recently in Japan.

"Soon after the commercial introduction of the trichloroethylene process for the production of soybean oil meal there were reported in this country cases of a hemorrhagic disease among some cattle which had consumed this product for variable periods of time. In some areas the incidence of morbidity and mortality have been high and in many cases it could be clearly established that trichloroethylene extracted soybean oil meal was one of the constituents of the ration of the affected animals. This experience is similar to that reported by Stockman in Great Britain in 1916 and since that time by others in Germany, Holland, Italy and Japan. It has been possible in several instances to produce experimentally a hemorrhagic disease in cattle and calves by feeding them trichloroethylene extracted soybean oil meal. On the other hand, experiments are on record and they agree with observations made on farms, where the feeding of trichloroethylene extracted soybean meal in quantities up to three pounds per day has been well tolerated by cattle for periods exceeding 200 days. Evidently, not all lots of trichloroethylene extracted soybean oil meal have the same effect quantitatively on cattle.

"The symptoms of the disease in cattle are essentially those of an aplastic anemia with a marked reduction of leucocytes, neutropenia, relative lymphocytosis, a decrease in circulating platelets, erythrocytes, hemoglobin and various degrees of hypoplasia of the bone marrow. The mucous membranes of the animals reveal petechial and ecchymotic hemorrhages; epistaxis and hemorrhages from the rectum, vulva and prepuce are frequently observed. The latter symptoms are accompanied by elevated body temperatures and frequently followed by death within a few days. Necropsy reveals extensive hemorrhages throughout the body. Fatal attacks of this disease may occur after the feeding of trichloroethylene extracted soybean oil meal has been discontinued for several weeks. No effective treatment of the affected animals is known at present.

"Recent observations made on farms as well as some experiments suggest that under certain conditions a severe hemorrhagic disease of sheep is associated with the feeding of trichloroethylene extracted soybean products. A horse has developed fatal aplastic anemia and extensive hemorrhagic lesions following the experimental feeding of trichloroethylene extracted soybean oil meal.

"In view of the evidence referred to, it is suspected that trichloroethylene extracted soybean oil meal contains some agent which is toxic to some species. Residual trichloroethylene as such is apparently not responsible for the effects of the meal. The toxic agent has as yet not been identified and hence there are no chemical tests available for its detection. It appears to be transmitted through the bovine placenta but no reliable evidence is available concerning its accumulation in the tissues of cattle or its transfer into the milk. These questions, however, should be studied and carefully considered in relation to the possible effects of consumption of animal products by man.

"Studies on this problem have been handicapped to date by the lack of a biological test system other than the bovine specie but they should be continued until the toxic agent, its mode of action and possible measures for its detection, control and prevention have been recognized. In view of these developments, it is indeed fortunate from a practical standpoint that the production of trichloroethylene extracted soybean oil meal was never more than a small percentage of the total tonnage of soybeans processed and that its production has now virtually been suspended."

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1952 Crop Is off to Normal Start

The soybean crop was planted at normal date or earlier over most of the soy belt and early progress was favorable in most areas.

The condition of the crop is generally good and the chances of maturity appear excellent.

Temperatures were above normal in June in much of the soy belt, especially toward the South. Conditions were reported as dry west of the Missouri River, also over much of the South, and some eastern states as well. Rainfall has been excessive in central Illinois, west central and northwest Indiana, and there will be some replanting. Spotted moisture conditions are reported in Missouri and west central Ohio. Weather is reported as good in Iowa, southwest Indiana, Minnesota, North Carolina, Wisconsin and Ontario.

Acreage is probably up a little as compared with our June report. (The USDA July 1 report was not available as the Digest went to press.) However, there were reports of acreage being under last year in sections of Arkansas, Illinois, Indiana, Kentucky, Ohio and South Dakota.

There were reports of acreage being up in Louisiana, Minnesota, Missouri, New Jersey, North Dakota, Wisconsin and Ontario. Acreage was reported to be the same as 1951 in Florida and Iowa.

Apparently not as many acres of soybeans went in as a replacement crop as usual this year, since planting conditions were generally favorable for other crops.

Reports of Digest correspondents follow:

Alabama

H. I. West, Bay Minette, for southwest (June 25): Acreage 60% of last year. Acreage will be same but dry weather has delayed planting. Eighty percent of crop would be planted ordinarily but can't break ground for second crop. If rains come soon planting will continue but will be late. Planted crop looking good.

Arkansas

Jake Hartz, Jr., Jacob Hartz Seed Co. Inc., Stuttgart, for southeast and south central (June 25): Southeast normal planting date; south central one to two weeks late. Acreage southeast 100% of last year; south central (rice area) 90%. Dry weather caused drop in acreage. No rain for 33 days. No moisture. Driest June on record. Condition 75% of normal. Young beans must have rain within week.

L. M. Humphrey, R. L. Dortch Seed Farms, Scott, for Little Rock area (June 24): Planting date about normal. Some late beans delayed by dry weather. Acreage about 110% of last year. Acreage a little higher than earlier intended. Unfavorable weather for cotton caused much replanting. Some went into beans. Weather very hot and dry. No rain for 32 days and maximum temperature above 90 degrees for 22 straight. Condition of early beans good. Late ones spotty with some poor stands.

Keith Bilbrey and Paul Hughes, Blytheville, for north Mississippi county (June 30): Planting date normal. Acreage 115% of last year, but slightly less than earlier intentions, due to "cotton habit," and good planting weather at planting time. Very dry. Beans suffering some. Sand spots burning. Higher winds than usual and above normal temperatures. Crop cleaner than usual. High state of cultivation. Condition normal except for drought.

Florida

E. N. Stephens, county agent, Pensacola, for Escambia County (June 23): Planting date 15 to 20 days later than normal. Acreage approximately same as last year. Weather very dry, caused delay in planting. Condition of crop a little below normal due to lack of adequate rainfall.

Illinois

J. E. Johnson, Champaign, for Champaign and adjoining counties (June 24): Planting date on whole slightly earlier than normal. Larger acreage planted early, less acreage in very late seedings. Acreage estimated to be 10% less than last year. Rainfall very heavy. Above normal in size and growth of plants, more rowed fields, better early cultivation.

Citizens National Bank, farm service department, Decatur, for central (June 25): Planting date normal. Less bean acreage, corn and oats same, larger wheat acreage. Weather hot, too much moisture. Condition of crop about normal, some drowned out, some weedy. Some insect damage on legumes, also oats.

Albert Dimond, Lovington, for Moultrie County (June 25): Planting date week late, made for better weed kill before planting. Acreage 10% less than 1951. Weather wet. Three to five inches of rain last week end. Low spots in corn and bean fields may need replanting, but not a large amount in this area. A strip from Jacksonville through Springfield, Decatur and Paris had wet June, which is seldom conducive to bumper yields.

Robert W. Weitzer, Valley Farms, Carrollton, for west central (June 22): Planting date normal. Acreage 90% of 1951. Plenty of moisture last two days. Up to then many beans hadn't even sprouted. Beans haven't normal growth at this time due to lack of moisture.

Indiana

George K. Black, J. A. McCarty Seed Co., Evansville, for southwestern (June 24): Planting date normal to week early. Acreage 10% less than 1951. More corn. Weather conditions excellent. Condition of crop 105 as compared with normal. Heavy grasshopper population. Little damage to beans yet.

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K. E. Beeson, secretary-treasurer, Indiana Corn Growers Association, West Lafayette (June 23): A trip through northern one-third Indiana and into southeast quarter during last week left impression acreage of soybeans in southeast quarter greater than ever before. This is not a heavy soybean producing section but apparently it has stepped up acreage. In intensive growing section of northwest central Indiana acreage appeared about as usual. A rough estimate in flood damaged section in western Indiana indicates possibly 5% of acreage planted was destroyed by heavy rains during June. Farmers calling for early maturing soybeans for delayed planting in drowned-out areas and flooded river bottoms. Growing conditions except for excess moisture excellent and stands appear good. Surprisingly free of weeds and grass in most cases.

Chester B. Biddle, Remington, for northwest (June 23): Planting date normal. Some reduction in acreage. Favorable price and good planting conditions encouraged farmers to grow corn. Excessive rain. Much low ground drowned out. Condition of crop about normal. A little behind if anything.

Iowa

Iowa PMA Committee, Des Moines (June 26): Planting date normal. Acreage about same as 1951. Weather and moisture conditions excellent. Condition of crop about average.

Fred Hawthorn, Castana, for western (June 27): Planting date normal except for flood land of Missouri bottom. More beans this year than last. Increase over earlier intentions because of late planting season due to floods. A lot of flood ground planted after middle of June may not mature. Condition of crop spotted. Some damage due to thistle caterpillar.

Kansas

Kansas Weekly Weather and Crop Report, Topeka (June 24): A good general rain needed in most sections. Soybean planting practically completed and early fields making good growth.

Kentucky

A. I. Reisz, Ohio Valley Soybean Corp., Henderson, (June 25): Planting date 10 days early. Acreage 95 to 100% of 1951. Very hot. Moisture very spotty, on dry side.

Louisiana

W. M. Scott, Scott Plantations, Tallulah, for Louisiana Delta (June 25): Planting date normal. Acreage 5 to 10% increase over 1951. Six weeks drought probably reduced late planted acreage. Very little planted behind early oat crop due to lack of moisture. Hot and dry. No rain for six weeks. Rain *badly needed* to set crop and stimulate growth. Condition of crop 85% of normal.

Minnesota

Howard E. Grow, Farmer Seed & Nursery Co., Faribault, for south central (June 26): Planting date about normal, 10 days earlier than 1950 and 1951. Acreage increase of 5 to 10% over 1951. Temperature normal, above normal moisture.

Clive F. Marshall, Honeymead Products Co., Mankato, for south central (June 24): Planting date about seven days early, acreage 11 to 13% higher than 1951. Plenty of moisture, crop off to good start. Enough moisture to grow beans to shade ground. The most perfect stand I have ever seen.

Missouri

J. Ross Fleetwood, University of Missouri, Columbia (June 24): Planting date somewhat earlier than normal on average. Acreage 20% above last year. Moisture supply spotted but mostly sufficient. Condition of crop excellent.

E. M. Poirot, Golden City, for southwest (June 22): Planting date 10 days earlier than normal. Acreage about same as last year. Acreage very little less than 1951, due to excellent corn planting weather. Drought becoming dangerous but no damage up to now.

O. H. Acom, Wardell, for southeast (June 23): Planting date 10 days earlier than normal. Ten to 15% acreage increase. Weather conditions and moisture supply generally ideal. Condition of crop above normal.

A. F. Stephens, general agricultural agent, G. M. & O. Railroad, St. Louis, for northeast Missouri and west central Illinois (June 23): Planting date two weeks earlier than normal. Northeast Missouri 10% increase in acreage; west central Illinois same as 1951. Soybeans replaced unplanted oats acreage in northeast Missouri. Temperatures extremely high first half of June.

100% Market for Trucks

Here's the Truck Market of the Soybean Industry at a Glance:*

1—Soybean processors, 1414 trucks.

2—Hay, grain and feed dealers, 54,421. (Most handle soybeans, soybean oil meal or both.) Feed mixing and manufacturing plants that also operate substantial numbers of trucks are not included in this figure.

3—On farms, 2.2 million. (The 625,000 highly mechanized farms that grow soybeans have far more than their share of the 2.2 million.) The average farmer-reader of the Soybean Digest operates 240 acres of land. He has at least one truck, often several.

OVER-THE-ROAD CROP. Soybeans are not like crops that are mostly consumed on the farms where produced. **Every bushel** of the nation's huge 300-million-bushel soybean crop not used for seed must move to processing plant to be turned into meal and oil before it can be used on the farm and in industry.

Trucks haul the soybeans from farm to elevator or processing plant. Trucks often haul the processed meal to feed manufacturing plant, to retail feed store, and then back to the farm feed lot.

And much of the processed soybean oil is moved to its destination by tanktruck.

YOU CAN READILY TAP this market by advertising in the Soybean Digest. The market reached by the Digest is a 100% market for trucks. Almost every reader is a potential buyer.

Soybean Digest circulation is concentrated in the leading soybean production areas but the Digest is read in 44 states, Washington, D. C., and many foreign countries. You will find it closely scanned by producers, processors, grain handlers and others interested in soybeans.

Address Inquiries to

THE SOYBEAN DIGEST

Hudson, Iowa

*Figures for processors are our own, those for dealers and farmers are supplied by American Automobile Manufacturers Association.

Moisture supply improved past week. Condition of crop 100% of normal.

Carver Brown, Laddonia, for northeast (June 24): Planting date five days earlier than normal. Acreage same as last year. Reduction of oats acreage caused by excess rain in March and April caused increased acreage compared with earlier intentions. Present weather conditions and moisture supply near ideal. Condition of crop excellent.

John E. Brown, Cypress Land Farms Co., Jaywye, for New Madrid County (June 23): Planting date normal. Acreage 10% up from 1951. One-half county in excellent shape; other half very dry with poor stands. Condition of crop 60 to 70% in dry half; normal in wet half. Some grasshoppers showing; considerable bacterial disease present at planting time causing poor stands.

Nebraska

Fremont Cake & Meal Co., Harry E. Wiysel, Fremont, for east central (June 28): Planting date about normal. Acreage up about 15%. Present weather conditions and moisture supply excellent. Condition of crop never better.

New Jersey

John E. Baylor, assistant extension specialist farm crops, New Jersey College of Agriculture, New Brunswick (June 23): Planting date normal. Acreage up about 10%. May be slight increase over earlier intentions as wet weather in May caused failure to get corn planted. No rain since June 3. Plenty of moisture deep but terribly dry in upper three to four inches. Condition of crop normal.

North Carolina

Irvin Morgan, Jr., Morgan Oil & Refining Co., Farmville, for eastern (June 23): Planting date normal. Acreage same as last year. Moisture supply ample and condition of crop normal.

North Dakota

C. J. Heltemes, Fargo (June 23): Planting date about usual to slightly late. Acreage up as compared with last year and probably with earlier intentions due to drop in corn acreage and late season. A little too dry to plant other late crops such as flax. Topsoil on short side in Cass County but adequate in Richland County. Most of acreage planted has emerged. Stands look good.

Ohio

G. G. McIlroy, Irwin, for west central (June 23): Planting date week earlier than normal. Acreage 5 percent less than 1951. Weather conditions and moisture supply varied. Some places drier than others. Condition of crop varied but on average a little better than normal. Soybean prospects better than corn prospects.

David G. Wing, Mechanicsburg, for west central (June 23): Beans were planted early, from May 1 to June 1. Acreage on large farms about normal. Small farms planted corn instead of beans. Good corn planting weather made a larger acreage of corn. Beans are growing and some of them cover the ground. It is dry south of us. Condition of crop ahead of normal.

South Dakota

H. G. Miller & Sons, Garden City, for Clark County (June 24): Planting date about normal. Acreage reduced, too dry at planting time. Very dry all spring until June 24. Since, it has rained several times in week, just in time. Crop had a slow start.

Wisconsin

Geo. M. Briggs, agronomy building, Madison (June 24): Planting date normal. Acreage same to up 10% from 1951. Too much moisture, interfering with care of crop.

John P. Dries, Saukville, for southeast (June 26): Planting date normal. Acreage somewhat less than 1951. Canning plants needed acreage of sweet corn. Present weather conditions and moisture supply very good. Normal height.

Ontario

R. H. Peck, River Canard, for southwest (June 24): Most beans were planted about five days early. Acreage about 20% increase over 1951. Very dry. Rain badly needed. Some late planted fields not germinating very evenly, and very early planted fields dry. All will mature except some late fields, if rain does not come immediately.

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PUBLICATIONS

New Bulletin by Morse and Cartter

If you want a quick once-over of the soybean and all its uses, both on-the-farm, as food, and in industry, you should obtain a copy of Farmers Bulletin No. 2038, by Morse and Cartter.

Both men are exceedingly well-known to soybean-minded men. W. J. Morse retired a few years ago as principal agronomist at the Bureau of Plant Industry, Beltsville, Md., and J. L. Cartter heads up the U. S. Regional Soybean Laboratory at Urbana, Ill.

Morse and Cartter have done a good job of bringing together under one cover at least a mention of most of the uses of the soybean. The bulletin is set up somewhat on the historical basis, as it proceeds from soybean hay (first use of soybeans in this country) to soybean pasture and silage, to whole soybeans for livestock feed, to soybean straw and then to soybean oil meal, by all odds the most important usage so far as the farmer is concerned. Methods of processing and the usage of the meal for various types of livestock are discussed.

There is a section on soy products for human consumption and on Oriental soy foods, with which Morse is thoroughly familiar since he spent considerable time in the Orient studying the subject.

The amount of space devoted to each aspect of soybean usage is hardly in relation to present day trends, but the bulletin is highly readable, interesting and useful nevertheless.

The bulletin supersedes Farmers' Bulletin 1617, which was written by Morse.

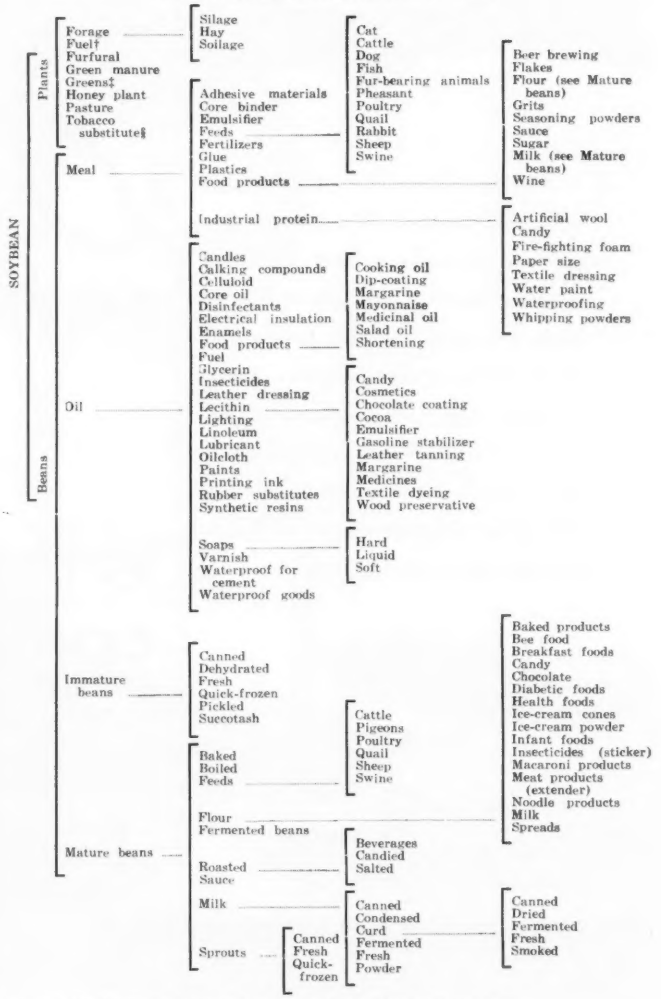
SOYBEANS FOR FEED, FOOD, AND INDUSTRIAL PRODUCTS. Farmers' Bulletin No. 2038, U. S. Department of Agriculture.

Cartter (left) and Morse at a soybean conference.

Vegetable Proteins

Considerable research has gone into the problem of devising adequate

SOYBEAN UTILIZATION (From Bulletin No. 2038)



†—Roots and coarse stems are used as fuel in China, Manchuria, and Korea.
‡—In many parts of China the plants, when 3 to 4 inches high, are used as greens.
§—In Manchuria and Korea the leaves are cured and smoked as tobacco.

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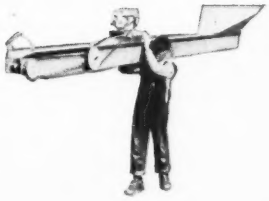

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poultry rations with vegetable products as the sole source of protein.

Most such rations have consisted primarily of corn and soybean oil meal. There have been fewer studies with cottonseed meal as the protein supplement in all-vegetable rations for poultry.

In general the soybean oil meal rations have been found to be deficient in methionine and vitamin B-12, the cottonseed meal ones deficient in methionine and lysine.

Recent studies have been undertaken at the Bureau of Plant Industry, Beltsville, Md., to find out how adequate the practical, simplified corn-soybean oil meal and corn-cottonseed meal diets are for all the essential amino acids and vitamin B-12. The effect of the addition of aureomycin to the cottonseed meal diet was also studied.

It was learned that:

1—Methionine is the only important amino acid deficient in a simple corn-soybean oil meal diet for the growth of chicks up to six weeks of age.

2—Lysine is the only amino acid deficient in a simple corn-cottonseed meal diet for chicks to the same age.

3—To get maximum growth it was necessary to add vitamin B-12 also to the corn-soybean oil meal ration, but not to the corn-cottonseed meal ration.

4—Addition of aureomycin improved the corn-cottonseed meal ration.

SUPPLEMENTATION WITH VITAMIN B-12 AND AMINO-ACIDS OF CHICK DIETS CONTAINING SOYBEAN OR COTTONSEED MEAL. By L. J. Machlin, C. A. Denton and H. R. Bird, USDA Bureau of Animal Industry, Beltsville, Md. Poultry Science, January 1952. Vol. 31, No. 1, pages 110-114.

Growth Inhibitor

The presence of a growth-inhibitor in raw soybeans for both chicks and rats has been well demonstrated.

Recent work at the University of Nebraska has sought to answer the question: Is there a factor that will counteract this growth inhibitor?

Growth of rats fed a ration containing 25 percent raw soybean oil meal was improved to the same rate of gain as rats fed autoclaved meal when 5 percent crude trypsin powder was added to each ration.

The ability of the crude trypsin powder to counteract the soybean growth inhibitor has established the existence of an anti-soybean growth inhibitor. That this activity of crude trypsin powder does not depend on trypsin is established by heat stability.

NUTRITIVE VALUE OF LEGUME SEEDS. XI. COUNTERACTING THE GROWTH INHIBITOR OF RAW SOYBEANS. By Raymond Borchers and C. W. Ackerson, department of agricultural chemistry, University of Nebraska, Lincoln, Nebr. Soc. Expt. Biol. and Med. Proc., Oct. 1951. Vol. 78, pages 81-83.

Miscellaneous

INCLINED-COLUMN GRAIN DRIER. Leaflet No. 314, November 1951. U. S. Department of Agriculture, Division of Farm Buildings and Rural Housing, Agricultural Research Center, Beltsville, Md.

ANNOTATED BIBLIOGRAPHY VITAMIN B-12 AND ANTIBIOTICS IN ANIMAL NUTRITION, July 1951. 69 pages. Merck & Co., Inc., Rahway, N. J.

THE PRESS

Program for Butter

The greatest consuming state in the country fell to yellow oleo when the New York State Senate voted to repeal the state's ban on the butter-yellow product. The Assembly had previously approved the bill. Governor Dewey supported the repeal measure.

What can the industry do to regain its markets that have been lost? Advertising and merchandising of high quality butter will help. It will not do the entire job by any means.

It would appear that the development of a low-fat dairy spread may be a more realistic and effective answer to oleo competition and the problem of lost markets. In other words, let's go out and recapture our fat market by meeting oleo in its own price field. Keep our high quality, high value butter in its present role and recapture as much of the spread market as possible with an all dairy, lower cost product.

This proposed solution is not as easily effected as it is stated.

While we can sympathize with those men who argue that butter is butter and nothing can take its place, it does not serve the industry nor the consumer to pursue such a philosophy when the consumer will not buy our product. Such is often the case when there is a significant price spread between butter and oleo. It is far better to have the consumer buying and using a low-fat dairy spread than oleo. We hope that industry leadership will follow such reasoning.—*Hoard's Dairyman.*

Kansas City 6, Mo.
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St. Louis 2, Mo.
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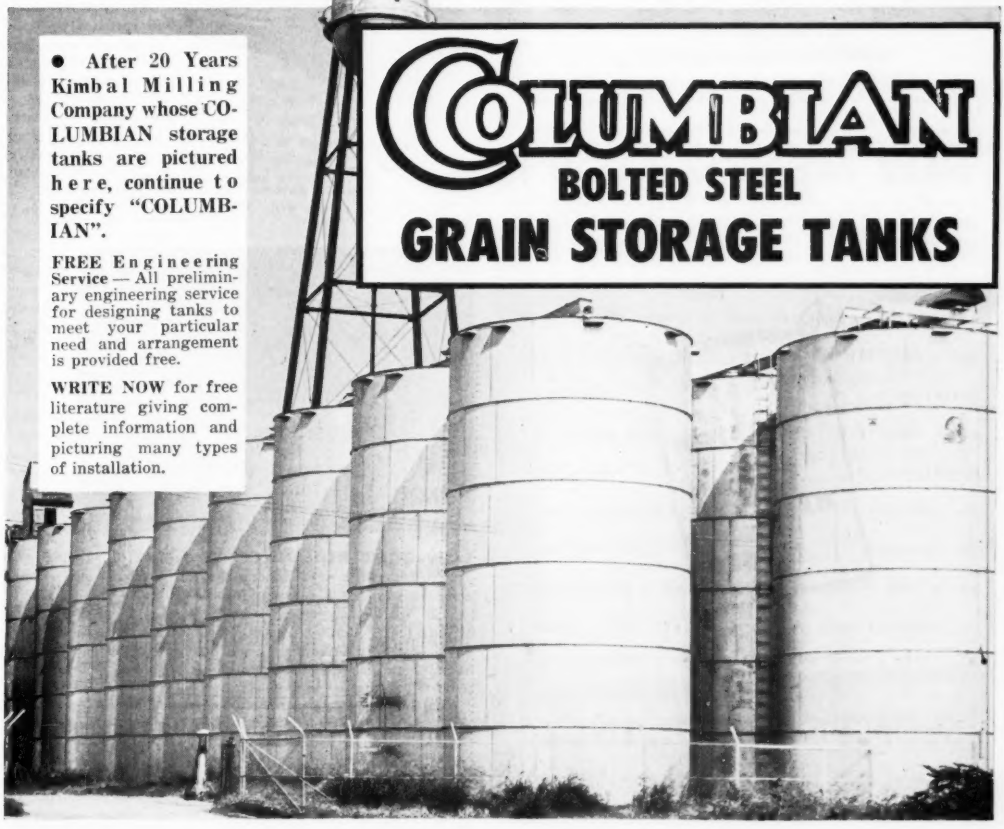

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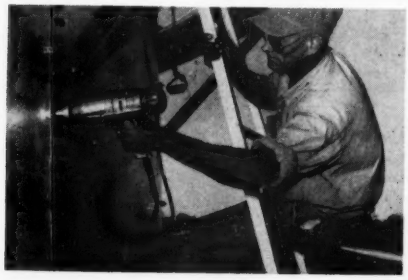
MILLING EQUIPMENT. A new book No. 2392, describing conveying, processing and power transmission machinery particularly adapted to the grain milling and processing industries, has just been published by Link-Belt Co.

It contains information to aid in selection of conveying equipment, including screw conveyors, belt conveyors, bucket elevators, Bulk-Flo, oscillating conveyors, also drives for practically every purpose, a railroad car unloader, dryers and vibrating screens.

For a copy of Book No. 2392 write Soybean Digest 7e, Hudson, Iowa.



FOR GRAIN TANK ERECTION. The use of power tools in the erection of steel grain storage tanks by Mill & Elevator Co., Des Moines, Iowa, has cut 150 man-hours from the average job and saved the company more than $7,000 in the construction of 25 tanks. In the average tank 21 feet in diameter and 48 feet high, nuts must be run on no less than 9,000 bolts.

For the past three years the firm has been using power on the nut-running job, using a Model 4U Ingersoll-Rand Impactool. An example was a 53,550-bushel steel grain tank at Muscatine, believed to be the largest in Iowa. The giant tank required 19,000 bolts, but it took just 200 man-hours to do the job. With hand wrenches, this would have consumed at least 500 hours.

Advantages of erection of steel bins with electric impact tools include: quicker service for customers, a larger volume of jobs with the same labor force, reduced workman fatigue, and tight construction throughout.

For complete information write Soybean Digest 7d, Hudson, Iowa.

FLOW METER. A new catalog describes variable-area flow meters with newly developed, precise, economical, tapered metal meter tubes. Armored Flowrator Meters, manufactured by Fischer & Porter Co., are designed for both high temperature and high pressure.

Copies of Catalog 40 may be obtained by writing to Soybean Digest 7g, Hudson, Iowa.

FARM DUMP HOIST. Latest models of the "Dump it" Hoist that converts your farm truck into a dump truck have been announced by St. Paul Hydraulic Hoist, Minneapolis, Minn.

The manufacturer says this hoist can save hundreds of man hours a year . . . filling pit silos, unloading sacks of feed, unloading grain into elevator hoppers, unloading silage, hay or grains in the feed lot, moving small outbuildings and many other everyday uses.

For further information write Soybean Digest 7h, Hudson, Iowa.

MILLING EQUIPMENT. A new bulletin that includes a description of milling equipment for the chemical and plastic industries has been released by the Allis-Chalmers Manufacturing Co.

Products covered in the bulletin include the "AirSet" roller mill, which is said to provide the closest approach to automatic milling yet devised; straight-line, single-flow roller mills; flaking and compounding mills; all-metal gyratory sifters; rotary dryers and coolers; metal divider; service elevator; and power equipment.

For copies of the bulletin, 06B6194D, write Soybean Digest 7i, Hudson, Iowa.

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GRITS and FLAKES... FROM THE WORLD OF SOY

◆ The American Society of Agricultural Engineers has awarded the Cyrus Hall McCormick Gold Medal for 1952 to Charles J. Scranton, chief engineer at the La Porte, Ind., works of the Allis-Chalmers Manufacturing Co. Among his accomplishments was development of the All-Crop Harvester, first widely accepted small combine for power take-off drive.

◆ L. H. Gregory, president of Farmers Cooperative Association, Ralston, Iowa, died May 31. He was father of C. M. Gregory, manager of the Dike, Iowa, Farmers Cooperative Co.

◆ Arthur G. Hopkins, president of Mrs. Tucker's Foods, Inc., since 1931, died at Jacksonville, Ill., May 25. W. S. Dorset, vice president, and a director of Mrs. Tucker's since 1927, has succeeded him as president. He has also been elected a director of Anderson, Clayton & Co., of which Mrs. Tucker's is a division.

◆ *The full line of machinery manufactured by the feed machinery division of the Fairfield Engineering Co., Marion, Ohio, is described in a new six-page folder, "Four Positive Additions to Multiply Feed Mill Efficiency."*

◆ Plans for improving the distribution of its Mankato, Minn., feed plant have been announced by Archer-Daniels-Midland Co. A large portion of the feed now being manufactured at Minneapolis will be made at Mankato, to take advantage of lower operating costs in the latter city.

◆ Dr. Owen A. Moe has been appointed manager of the technical sales service department at General Mills research laboratories, Minneapolis. He will be in charge of customer service requests for General Mills' experimental and semi-commercial chemical products, including fatty amines and amides, Polyamide Resins, and Polyamide Resin Suspensoids. He joined General Mills in 1943.

◆ Janesville Mills, Inc., Janesville, Wis., soybean processors, have been appointed distributors for General Mills Larro Feeds.

◆ *"The Amazing Soybean," an article describing the soybean and the solvent extraction process, was carried in the April issue of Armstrong's Insulator, Lancaster, Pa.*

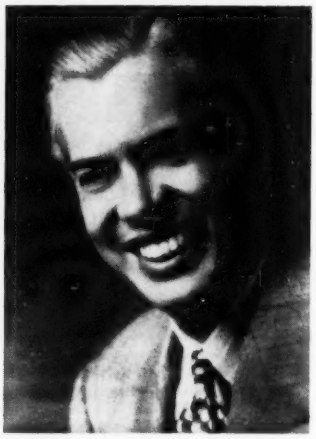
◆ James M. Crockin has been placed in charge of coordinating engineering and manufacturing activities of the cottonseed oil extraction program of the Lukenweld division of Lukens Steel Co., Coatesville, Pa. Arthur E. Kurtz has been named to direct contract engineering for the firm. Both men have backgrounds of many years in the oil extraction field.

◆ Marvin H. Ramer has been promoted to contract manager at the Southwest division of chemical plants division, Blaw-Knox Co., at Tulsa, Okla. He will have charge of all contract preparations and will assist in contract negotiations for the engineering, procurement and construction acivities of chemical plants originating in the Southwest division.

◆ Ralph H. Manley was appointed managing director of General Mills research laboratories in a reorganization announced June 1 by A. D. Hyde, vice president in charge of research. Other appointments included: John S. Andrews, director of food research; Lester F. Borchardt, director of physical research; Malcolm M. Renfrew, director of chemical research; William E. Anklam, director of commercial and economic research; and Abner C. Hopkins, Jr., director of commercial chemical development.

◆ *"Fatty Acid Esters for Polyvinyl Alcohol," is title of an article by A. E. Rheineck in the May issue of Paint & Varnish Production Manager.*

HEADS WESTERN SALES



FRANK D. ALLEN

Frank D. Allen has been appointed sales manager of the Western pellet mill division of Sprout, Waldron & Co., Inc., Muncy, Pa., according to an announcement just made by Harold Alsted, vice president in charge of sales. As of June 1, Allen will establish headquarters for the Western pellet mill division in the Kansas City area with offices located at 7423 Village Drive, Prairie Village, Kan.

The rapidly increasing demand by processing industries for the Sprout-Waldron "Pellet Ace" and "Junior Pellet Mill" has necessitated splitting the pellet mill sales and service organization into an Eastern and Western division.

In addition to having over-all responsibility for the sale of Sprout-Waldron pellet mills in the Western division, Allen will be in charge of the sale of most of the company's products.

Allen comes to the Sprout-Waldron organization after having served as sales manager of the Wolf Co., Chambersburg, Pa., for five years. For the past 16 months Allen has been serving a tour of active duty in the Army. He served in Army Intelligence during World War II and at the outbreak of the Korean War, he was recalled to Army duty in Intelligence.

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We are pleased to announce that we have opened a chemical laboratory at 9 South Clinton Street Building, Chicago, Illinois, to better serve the soybean industry.

Our Chicago laboratory will specialize in refining losses and bleaches of soybean oils, analyses of Tallow and Greases.

The processors who use the Chicago Board of Trade services will find it more convenient to use our Chicago laboratory, as we are official chemists for the Chicago Board of Trade.

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◆ Central Cooperative Wholesale, Superior, Wis., will soon launch mass production of the famous McCay formula bread, which includes 6 percent soy flour as well as more than the usual quantities of milk solids and wheat germ. It will be marketed under the name, "Co-op Protein Bread." The bread has been gaining popularity rapidly in the East and Far West.

◆ Sparkler Manufacturing Co. has announced the opening of a new branch office to serve the West Coast at 612 N. San Vincente Blvd., Los Angeles 46, Calif. The branch will offer expert engineering service to help solve any problems of liquid purification. Richard E. Shields, who has been associated with Sparkler for many years, has been appointed West Coast sales manager.

◆ James E. Day, president of the Midwest Stock Exchange, has been elected president of the Executives' Club of Chicago. Anthony G. Allison, director of public relations for the Chicago Board of Trade, has been elected a member of the board of directors.

◆ *Dr. Frank C. Hildebrand, 42, has been named administrative assistant to Charles H. Bell, president of General Mills, Inc., Minneapolis, Minn. He joined General Mills research laboratories as a chemist in 1935.*

◆ Frank L. Gunderson, scientific research and technical development vice president, left his position with Pillsbury Mills, Inc., Minneapolis, June 30. Walter T. Blake, who has been on active duty as lieutenant colonel in the Army, returned to Pillsbury June 1 and was assigned as manager of the research and development department.

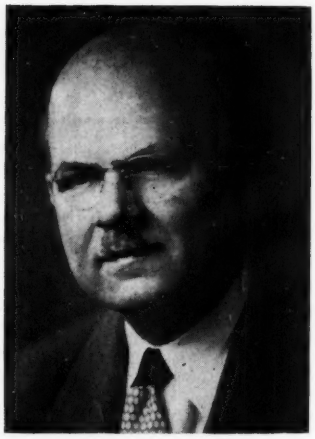
◆ Rapids-Standard Co., Inc., Grand Rapids, Mich., manufacturer of Rapistan materials handling equipment, announces the appointment of Bert Woldring as researcher in product and market development. He joined the company in 1942. The firm has named Kenneth P. Denistry as product manager of the caster and truck division of the firm.

◆ W. A. Roberts, president, Allis-Chalmers Manufacturing Co., Milwaukee, Wis., was one of seven men who recently received the Horatio Alger Award in recognition of their rise from humble beginnings through their own ability and industry.

◆ *Jules M. Salmanowitz, president of Superintendence Co., Inc., has been re-elected president of the New York Produce Exchange.*

◆ J. C. (Larry) Doyle, Ford division central regional sales manager, has been appointed sales and advertising manager of Ford Motor Co. He is a veteran of 36 years in the Ford sales organization.

HEADS BLAW-KNOX DEPT.



HAROLD V. WILLIAMS

Harold V. Williams has been appointed manager of the process equipment department of Blaw-Knox Co., Pittsburgh, Pa. He succeeds Bruce Alexander who has been transferred to the staff of the chemical plants division. A large scale expansion and modernization of the process equipment department is now under way.

Williams has been with Blaw-Knox for 16 years and for the past year was manager of the Tulsa office of the chemical plants division. For some years before this he represented both the process equipment department and the chemical plants division as manager of the Western sales department. His education includes specialized training at Armour Institute of Technology, University of Chicago, and Columbia University.

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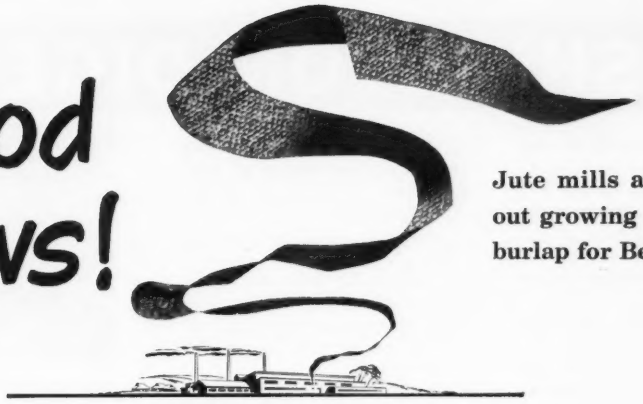
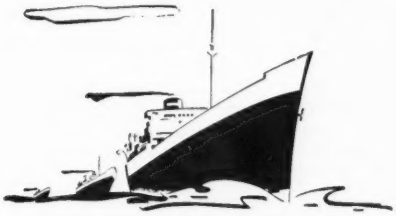
Good News!



Jute mills are turning out growing supplies of burlap for Bemis.



Steady, increasing shipments are coming to Bemis, America's largest importer of burlap.

Bemis plants are turning out fine burlap bags at a rate to give you any delivery you want.

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Considering the current low price of Bemis Burlap Bags and the re-use value, they may well be the most economical bags you can use.

BEMIS BRO BAG COMPANY

WASHINGTON DIGEST

By WAYNE DARROW
Washington Correspondent for
The Soybean Digest

CONTROLS. Congress extended price controls for most farm products until next April 30, but with few exceptions they'll have little meaning.

Soybean and oil meal prices are the chief exception. Price ceilings on these are to continue as long as prices are around ceiling levels.

Congress part way lifted the extra restrictions placed a year ago on imports of fats and oils. It now permits the Secretary of Agriculture to allow imports of a commodity 15 percent above fixed quotas.

OPS has rechecked the entire price situation for oil seeds, meals and related feeds. It plans to put ceilings for these on a "reasonable and realistic" basis for the 1952-53 season, and to make "prompt adjustments" as needed throughout the season should the situation change. The new regulations are in process, and are due to be issued this month.

The thinking is to leave the old oil price ceilings alone, but in computing oil meal ceilings use an unpublished oil price a few cents above present levels. Some of the top men think this will raise bean meal ceilings substantially. However, OPS technicians who are doing the spadework think the present $81 a ton ceiling about right.

In its study so far, OPS technicians say they do not find a basis in price history for the common belief that bean meal prices have risen more in recent years in relation to cottonseed meal prices. In other words, they think a $3-a-ton differential between the two about right.

PRICES. A scarcity of beans that didn't become apparent to all until a month ago is the official explanation of recent price rises.

Total June 1 stocks are estimated by USDA at about 77 million bushels. Crushings for Oct. 1-May 31 are reported by Census at 175.6 million bushels, compared to 182.5 million bushels for the same eight months the previous season.

Preliminary estimates of July 1 stocks in all positions puts them at around 50 million bushels, with 10 million on farms. This isn't much different from a year ago, but demand for meal is greater this year.

If the July 10 crop report indicates a large crop of 290 to 300 million bushels, officials think most of the to-be-expected easing off of prices this summer will be offset by the strong crusher demand for beans to keep mills running.

EXPORTS. The first sharp break in fats and oils exports has shown up in the April figures, latest ones available. Officials think this is the start of an export decline that probably will last throughout 1952, and perhaps longer.

Vegetable oil exports, mostly soybean oil, dropped 55 percent in April compared to a year ago. Lard exports dropped about 20 percent.

The latest unpublished official estimates of soybean exports for the year ending next Sept. 30 are 15 to 18 million bushels as beans, and 20 to 25 million bushels as oil. This compared with 1950-51 exports of 28 million bushels as beans, and 50 million bushels as oil.

Oil exports from last Oct. 1 through April totalled 177 million pounds. The total for the year isn't expected to exceed 200 million pounds.

As seen here, the two big price facts in the soybean industry are the uptrend in demand for meal, and that oil is over-produced. It points up the need for a big export program for oil.

Europe is getting Manchurian beans that went to Japan before the Korean war. Manchuria and the U. S. have switched markets. We supply most of Japan's beans, and Manchuria supplies most of Europe's.

Manchuria shipped Western Europe about 3.5 million bushels in 1950 while we shipped 5.4 million bushels there. In 1951, Manchurian shipments rose to about 18.5 million bushels, but our's rose to only 8.7 million bushels. These estimates are for calendar years, by USDA's office

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are MADE STRONGER
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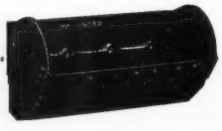

and will operate more efficiently at less cost than other elevator cups.

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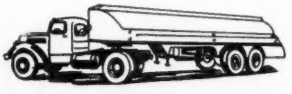

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of Foreign Agricultural Relations.

Recent reports from Europe state that the quality of Manchurian beans far surpasses U. S. beans. One man describes the Far Eastern beans as "beautiful, like you see in county fairs here."

Manchurian beans are sold on a "pure" basis, with no extra charge for extra quality, but with discounts from quoted prices if beans fall short of standard. Admixtures of foreign matter run only 16 one-hundreths of 1 percent, with few splits. By comparison it is said that our beans are "trashy."

The U. S. is at a price as well as a quality disadvantage in competing in Europe with Manchurian beans, which are bought with soft currencies. They've been selling recently at about 30 cents a bushel less than U. S. beans.

FEED DEMAND. Hog marketings will be 10 to 12 percent lower in the Cornbelt the next 12 months than during the last year, it is indicated by USDA's June pig crop report. The decrease will be greater after next November, than from July through October. This is shown by study of the distribution of farrowings.

Hog prices are due to rise more sharply after October, than before. The price average for the next four months is expected to be about $1.25 a hundredweight above the same period a year ago, and about $2.50 a hundredweight higher than last year for November to February.

Average monthly prices at the Big 8 Cornbelt markets are estimated at $22 a hundredweight in July, $24 in August, $23 in September, and $21 in October. The corn-hog ratio this fall should be at least 13 to 1 if the corn crop is good, leading to an expectation of a larger spring pig crop in 1953.

The big cuts in the pig crop are in the western Cornbelt: 14 percent compared to 4 percent in the eastern Cornbelt. USDA estimates the cut in the fall crop will be 10 percent in the west, 6 percent in the east.

The only regions to increase the spring pig crop are the Southeast and Northeast, up 8 percent and 6 percent respectively.

The cut in the pig crop would have been 13 percent in the Cornbelt, and 11 percent in the U. S. as a whole, had it not been that pigs saved per litter hit an all-time high. This, USDA specialists say, is due in part to improved feeding.

The cut in hog numbers will reduce consumption of bean meal by hogs from this season's estimated total of about 1,440,000 tons to around 1,300,000 tons, if the same feeding rate continues. On the other hand, about half this reduction will be offset by increased cattle numbers.

However, the uptrend in feeding rate per animal will probably absorb the expected moderate increase in the supply of bean meal without great decline in bean meal prices.

CROP OUTLOOK. As it looks now, if there is any increase in total oil meal supplies next season, it will come from soybeans. A cotton crop not greatly different from last year is expected, flaxseed and peanut crops and crushings will be smaller, and little change is anticipated in copra meal supplies.

A 1952 bean crop of about 283 million bushels can be expected if farmers harvest 13.8 million acres, as the intentions-to-plant report indicated, and if yields are a little lower than in the last three years due to a small shifting of acreage from Midwest to South. USDA officials are anticipating an average yield of 20.5 bushels per acre this year if weather is average. This compares with acre yields of 21.2 bushels last year, 21.7 bushels in 1950, and 22.3 bushels in 1949.

However, a crop of 290 to 300 million bushels this year would occasion little surprise here.

A crop of 290 million bushels this year would permit a feeding rate of about 71 pounds per animal unit in the 1952-53 season. This compares with 66.7 pounds this season, and 70 pounds in 1950-51.

— s b d —

ACREAGE IN TURKEY

The soybean acreage in Turkey may be expected to show considerable percentage increase in the future, though the total acreage is not expected to become very large, according to Foreign Crops and Markets of U. S. Department of Agriculture.

The Turkish soybean acreage was 6,000 in 1951 compared with 5,000 in 1950.

Market Street

We invite the readers of THE SOYBEAN DIGEST to use "MARKET STREET" for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here.

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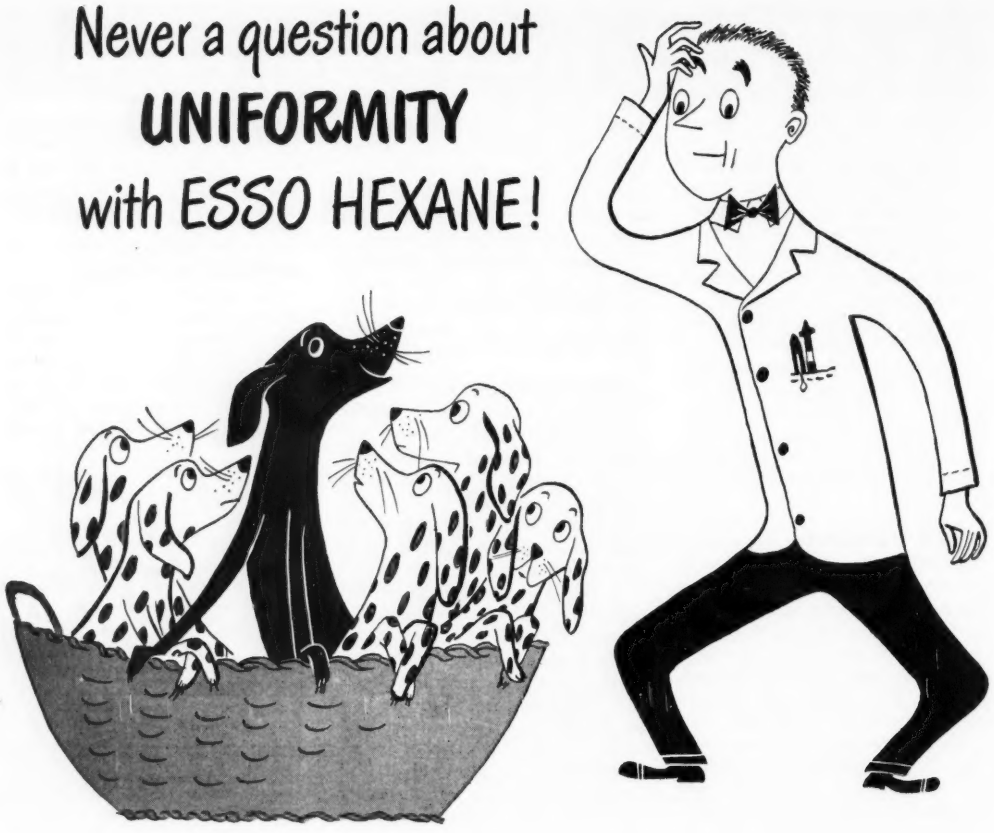

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ESSO HEXANE is highly satisfactory in soybean and cottonseed mills using the solvent extraction method . . . high recovery of oil and low solvent losses are experienced.

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- **MULTI-STORAGE AVAILABILITY** — water terminals in industrial centers.

Controlled high quality helps produce larger profits with versatile, dependable Esso Solvents.

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If you have a solvents problem or want further information on the specifications and characteristics of Esso Hexane — write or call our office nearest you. Our technicians will be glad to assist you.

IN THE MARKETS

Bean Price Hits Ceiling

July soybean futures advanced sharply the first 12 days of June to reach new highs for the season and the virtual ceiling. There were reports that some processors paid ceiling prices at country points. But the bull movement had spent itself by the 12th and futures held steady during the balance of the month.

Little trend was discernible in the fats and oils market. Crude soybean oil was slightly higher at the end of the month than at the start. The month's range was less than 1c.

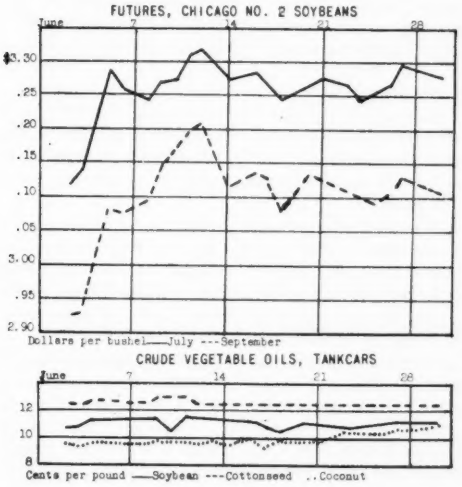
Practically no straight soybean oil meal was offered at ceiling levels. Meal mixtures reflected the changes in soybean futures, and the quoted range during the month was from $85 to as high as $96 a ton, bulk Decatur.

Probably the main factor causing the June rise in soybean futures was the growing conviction that the 1951 crop had been over-estimated, and that there were fewer beans in farmers' hands than had been reported. Even ceiling prices failed to bring a large volume out of the country.

Other factors that had their effect were a firm market for new crop soybean oil meal, the fading hopes of peace in Korea, interest in purchases by foreign countries, and the report that Office of Price Stabilization has been studying ceilings of soybeans and soybean products, with the possibility that they might be raised. (OPS announced June 4 that "no immediate action is planned" for raising the meal ceiling.) Also, there was the feeling that fats and oils prices had probably declined further than conditions justified.

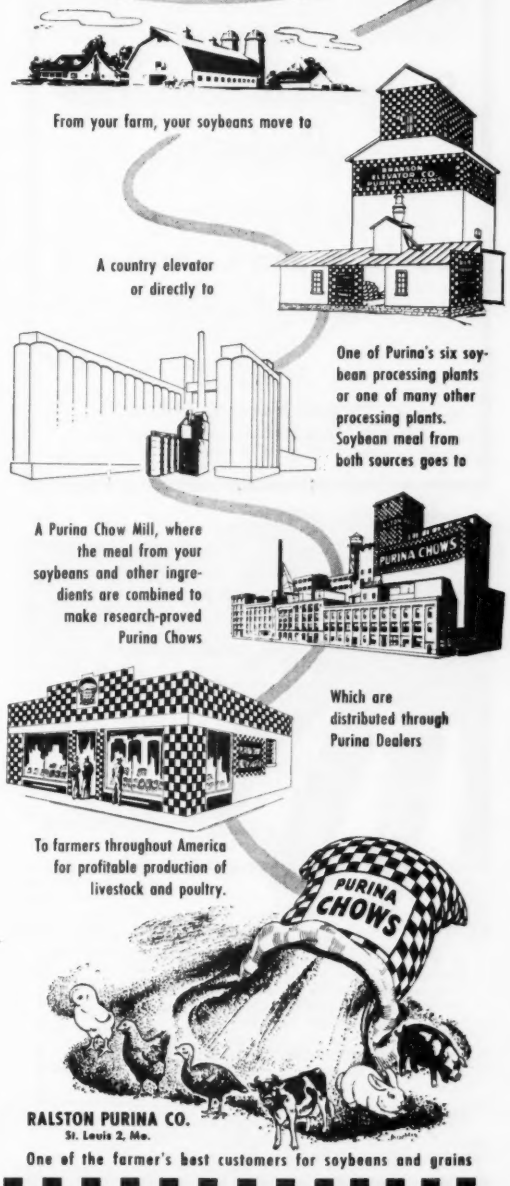
Weakening factors that helped to halt the rise were reports of good progress of the 1952 crop, which should bring the first beans on the market in September, and less aggressive demand by processors.

Crushing of soybean oil meal was at a fairly good rate



THE PART PURINA PLAYS IN

THE SOYBEAN CYCLE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One of Purina's six soybean processing plants or one of many other processing plants. Soybean meal from both sources goes to
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for the time of year, but it was all applied on previous commitments.

It was reported that Japan bought a cargo of soybeans for July shipment and that Holland was showing interest in substantial quantities of soybeans. Israel was reported to have bought 80,000 bushels. Austria bought 500 tons of degummed crude soybean oil for July and August delivery.

The Chicago Board of Trade ordered a payment of $10 per ton as liquidated damages against shorts who defaulted on May 1952 soybean oil meal futures contracts. At the close of business May 29, the final day for delivery on open May contracts, there were 64 lots of 100 tons each of May meal futures still open.

The Board of Trade directors also ordered that effective Wednesday, June 11, trading in the July 1952 soybean oil meal future would be limited to liquidating purposes only, except that anyone having meal of contract quality and a deliverable position, might take a short sale in the July future, for deliverable purposes only.

Production of primary edible fats and oils, which was at a record level in the first half of the October 1951-September 1952 marketing year, is expected to drop somewhat below the levels of a year earlier this summer, according to USDA'S Fats and Oils Situation. Soybean oil and lard probably account for most of the decline.

Disappearance of fats and oils used in food in the first half of the current marketing year was less than in the same period of 1950-51. Although margarine use increased, the gain was more than offset by declines for all other food fats.

Stocks of primary food fats and oils, except butter, are large. Unless exports are much greater than expected, carry-over at the end of 1951-52 will be considerably larger than on the same date in 1951.

The total quantity of byproduct feeds for 1951-52 is expected to be nearly as large as the record of 21.7 million tons in 1950-51. A record supply of oilseed cake and meal is available, according to Feed Situation of Bureau of Agricultural Economics.

The quantity of oilseed cake and meal available for feeding in 1951-52 is expected to total around 9 million tons, about 4 or 5 percent larger than in 1950-51. The quantity of cottonseed cake and meal probably will be about 750,000 tons greater than last year and the largest in recent years.

Production of oilseed cake and meal has been at a record rate so far this season, totaling 5,379,000 tons during October-March, about 400,000 more than in the same six months of 1950-51. Production is expected to be little, if any, larger than a year earlier during April-September.

Stocks of oilseed cake and meal on Apr. 1 were much smaller than a year earlier. These indications point to somewhat smaller supplies available for feeding during April-September, especially of soybean and linseed meals.

Average price paid to farmers for No. 2 soybeans at 22 points in 12 states was $2.95½ June 25.

Reports to the Soybean Digest indicate that farmer stocks of 1951-crop soybeans are all cleaned up in many areas. There apparently are few beans remaining in farmers' hands in the South. Reports from the Midwest are that farmer stocks range from 0 to not over 10 percent of the 1951 crop most places.

FUTURES TRADING AND OPEN CONTRACTS IN SOYBEAN OIL MEAL ON MEMPHIS MERCHANTS EXCHANGE CLEARING ASSOCIATION (IN TONS)

	Volume of Trading	Open Contracts		Volume of Trading	Open Contracts
May 27	500	84,800	June 14	1,000	90,700
May 28	2,600	85,200	June 16	2,900	89,500
May 29	2,900	86,000	June 17	2,100	88,300
June 2	2,400	87,400	June 18	3,200	87,100
June 4	4,600	87,400	June 19	5,600	83,500
June 5	1,200	87,400	June 20	2,100	83,600
June 6	2,500	87,800	June 21	800	83,900
June 7	400	87,900	June 23	2,300	84,600
June 9	1,500	89,000	June 24	3,800	83,600
June 10	300	89,100	June 25	1,400	83,800
June 11	1,600	90,400	June 26	2,500	83,000
June 12	4,000	90,800	Total for 24 days reported	54,800	
June 13	2,600	89,700			

MEMPHIS SOYBEAN OIL MEAL FUTURES CLOSE JUNE 30*
(Contract 100 tons bulk, Decatur)

July 81.00b; Aug. 81.00b; Oct. 80.00; Dec. 78.00@78.50; Jan. 77.00@78.00; Mar. 76.00@77.25; May, 76.25@77.50.

CHICAGO SOYBEAN OIL MEAL FUTURES CLOSE JUNE 30*

July 81.00b; Oct. 80.40b-80.75a; Dec. 78.50b-79.00a; Jan. 77.25b-77.75a; Mar. 77.10b-77.25a.

CHICAGO SOYBEAN OIL FUTURES CLOSE JUNE 30*

July 11.07-11.05; Aug. 11.15-11.25a; Sept. 11.25-11.24; Oct. 11.19b-11.22a; Nov. 11.20b-11.22a; Dec. 11.20b-11.21a; Jan. 11.18b-11.20a; Mar. 11.30.

NEW YORK SOYBEAN OIL FUTURES CLOSE JUNE 30*

July 11.05b; Sept. 11.25b; Oct. 11.10b; Dec. 11.18b; Mar. 11.15b.

*Reported by the Chicago edition of Wall Street Journal.

● **INSPECTIONS.** Inspected receipts of soybeans continued to decrease in April and were the smallest since April 1948, according to reports to the Department of Agriculture. Inspected receipts in April totaled 4,031 cars compared with 7,663 cars in March, 6,483 in April 1951, and 5,175 cars inspected in the five-year April 1946-50 average. Inspected receipts for October through April totaled 90,500 cars compared with 105,881 cars for the same months a year ago.

The quality of the soybeans inspected in April was somewhat below the preceding month with 75 percent grading No 2 or better compared with 76 percent in March. Of the October-April receipts this year, 66 percent graded No. 2 or better compared with 78 percent last season.

Inspected receipts of soybeans in May were of better quality than those inspected in April. Eighty-three percent of the May inspections graded No. 2 or better.

Inspected receipts of soybeans in May were the largest of record for that month and totaled 8,796 cars compared with 4,447 cars the five-year May average.

● **EXPORTS.** U. S. exports of soybeans and soybean oil for April, as reported by the Office of Foreign Agricultural Relations of the U. S. Department of Agriculture:

Soybeans	1,507,216 bu.
Soybean oil, crude	4,348,160 lbs.
Soybean oil, refined but not further processed	1,102,380 lbs.
Soybean oil, refined, deodorized and hydrogenated	1,042,772 lbs.

Converted to a soybean equivalent basis, the exports for April amounted to 2,184,314 bushels.

The grain inspection department of the New Orleans Board of Trade reports 84,000 bushels cleared for export in May compared with 1,000 bushels in May 1951. The 84,000 bushels all went to Norway.

A total of 8,411,000 bushels of soybeans have been cleared through the Port of New Orleans since July 1, 1951.

● **STOCKS.** Production and Marketing Administration's commercial grain stock reports.

U. S. Soybeans in Store and Afloat at Domestic Markets

	May 27	June 2	June 9	June 16	June 23
Atlantic Coast	631	431	568	465	461
Gulf Coast	148	1,108	1,130	1,134	1,169
Northwestern and Upper Lake	62	51	51	43	34
Lower Lake	1,235	1,679	1,475	1,473	1,151
East Central	754	717	625	624	555
West Central Southwestern & Western	431	953	351	334	300
Pacific Coast	0	0	6	0	0
Total current week	3,261	4,939	4,200	4,073	3,670
Total year ago	6,100	5,579	6,429	5,393	4,542

● **SHORTENING.** Standard shortening shipments reported by the Institute of Shortening and Edible Oils, Inc., in pounds:

May 3	4,768,734
May 10	4,576,982
May 17	5,303,641
May 24	6,694,686
May 31	5,514,288
June 7	6,307,586
June 14	5,830,275

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● PROCESSING OPERATIONS. Reported by Bureau of Census for April, May.

RAW MATERIALS AT OIL MILLS: RECEIPTS, CRUSHINGS AND STOCKS MAY 1952-APRIL 1952
(Tons of 2,000 pounds)

Raw Materials	Receipts at mills		Crushed or used		Oil mill stocks end of month	
	May 1952	April 1952	May 1952	April 1952	May 31, 1952	Apr. 30, 1952
Soybeans	476,048	291,849	590,465	603,877	854,803	969,220
Cottonseed	14,373	22,325	217,667	305,597	315,186	518,480
Peanuts:						
Shelled	3,200	4,943	4,991	5,419	1,598	3,389
Unshelled	10,518	14,691	13,116	12,001	12,039	14,637
Corn-germs	25,937	25,034	26,654	24,903	1,115	1,832
Copra	22,383	23,823	23,068	32,794	11,267	11,952
Flaxseed	53,625	30,119	58,334	53,125	96,321	101,030
Tung nuts	(1)	(1)	(1)	(1)	(1)	(1)
Castor beans	6,261	5,520	6,893	7,216	8,766	9,398
Olives		(1)		1,433		
Other	4,346	3,548	4,255	3,351	1,325	1,234

(1) Included in "Other" to avoid disclosure of figures for individual companies.

PRIMARY PRODUCTS EXCEPT CRUDE OIL, AT CRUDE OIL MILL LOCATIONS: PRODUCTION, SHIPMENTS AND TRANSFERS AND STOCKS, MAY 1952-APRIL 1952

Products	Production		Shipment and transfers		End of month stocks	
	May 1952	April 1952	May 1952	April 1952	May 31, 1952	Apr. 30, 1952
SOYBEAN:						
Cake and meal†	457,917	467,227	455,899	464,192	59,041	57,023
Lecithin‡	1,644,806	1,486,979	1,730,049	1,604,903	3,021,052	3,106,295
Edible soy flour, full fat†	369	(1)	412	450	229	272
Edible soy flour, other†	4,120	4,627	3,931	4,697	1,313	1,124
Industrial soy flour†	1,640	3,190	2,439	3,255	689	1,488

(1) Not shown to avoid disclosure of figures for individual companies. † Unit of measure in tons. ‡ Unit of measure in pounds.

SOYBEANS: RECEIPTS, CRUSHINGS AND STOCKS AT OIL MILLS, BY STATES, MAY 1952-APRIL 1952
(Tons of 2,000 pounds)

State	Receipts at mills		Crushed or used		Stocks at mills	
	May 1952	April 1952	May 1952	April 1952	May 31, 1952	Apr. 30, 1952
U. S.	476,048	291,849	590,465	603,877	854,803	969,220
Arkansas	(1)	(1)	14,249	16,049	21,990	(1)
Illinois	183,742	139,607	224,999	238,451	270,114	311,371
Indiana	71,886	24,350	61,674	61,393	48,369	38,157
Iowa	95,038	53,436	101,655	90,715	131,742	138,359
Kansas	5,755	6,483	8,707	10,760	12,652	15,604
Kentucky	14,195	5,459	16,059	13,590	24,685	26,559
Minnesota	30,728	16,946	27,571	25,668	14,694	11,537
Mississippi	859	(1)	(1)	8,687	5,102	(1)
Missouri	7,057	4,706	18,644	17,500	66,576	78,163
Nebraska	(1)	3,033	4,401	4,090	12,489	(1)
N. Carolina	743	(1)	9,516	10,522	12,646	21,419
Ohio	38,806	24,469	62,678	62,930	147,800	171,672
Oklahoma	(1)	(1)	(1)	2,401		(1)
Texas						
All other	27,249	13,360	40,312	41,121	85,944	156,379

(1) Included in "All other" to avoid disclosure of figures for individual companies.

SOYBEAN PRODUCTS: PRODUCTION AND STOCKS AT OIL MILL LOCATIONS, BY STATES, MAY 1952-APRIL 1952

State	Crude oil (thousand pounds)				Cake and meal (tons)			
	Production		Stocks		Production		Stocks	
	May 1952	April 1952	May 31, 1952	Apr. 30, 1952	May 1952	April 1952	May 31, 1952	Apr. 30, 1952
U. S.	199,002	204,138	95,224	112,344	457,917	467,227	59,041	57,023
Arkansas	4,413	4,899	1,197	1,368	10,551	12,297	1,906	1,865
Illinois	79,813	84,922	36,345	45,797	169,891	177,401	24,443	21,391
Indiana	22,057	21,680	9,266	8,957	49,924	49,257	7,990	5,612
Iowa	31,653	29,294	19,784	23,245	79,303	73,128	6,272	7,068
Kansas	2,847	3,490	2,194	2,903	6,950	8,443	596	861
Kentucky	5,959	5,110	808	561	12,377	10,593	683	830
Minnesota	8,557	7,892	4,432	3,790	21,289	19,827	(1)	3,950
Mississippi	(1)	3,040	1,020	1,074	(1)	7,340	651	1,168
Missouri	6,005	5,564	1,472	1,032	14,707	13,389	1,666	1,806
Nebraska	1,195	1,151	653	308	3,846	3,290	(1)	(1)
N. Carolina	2,629	2,855	2,653	2,558	7,457	8,160	1,885	1,250
Ohio	21,214	21,297	9,414	10,096	49,538	49,735	3,650	3,926
Oklahoma	(1)	708	(1)	(1)	(1)	1,833	469	1,020
Texas							(1)	(1)
All other	12,660	12,236	5,986	10,655	32,084	32,534	8,830	6,276

(1) Included in "All other" to avoid disclosure of figures for individual companies.

Prepared by Bureau of the Census, Industry Division, Chemicals Section

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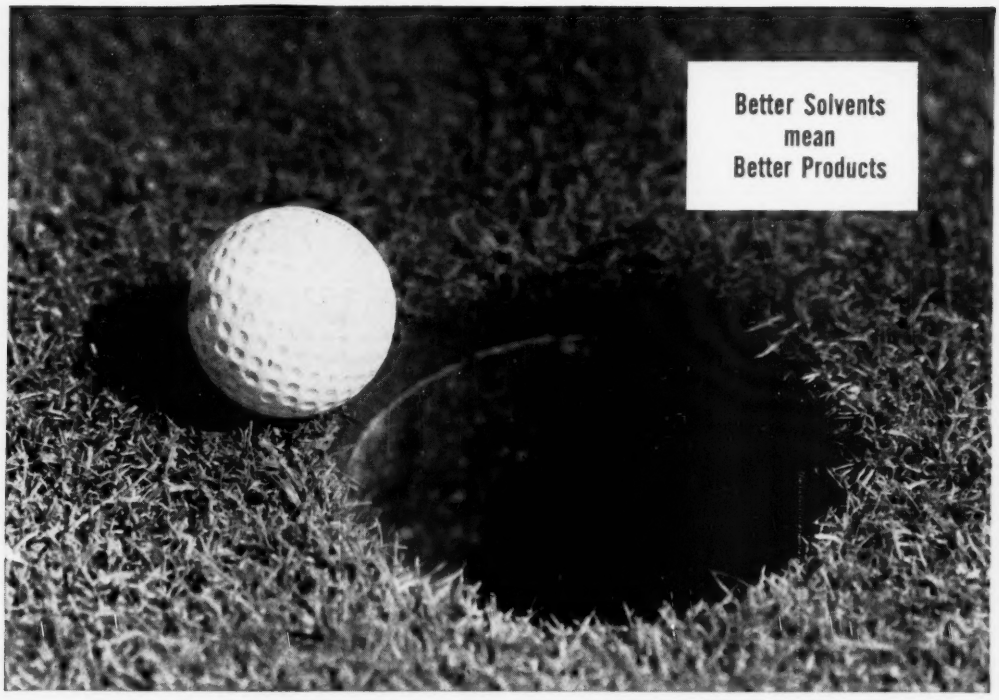

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